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To fix the bearing of what I have to say, it is at the outset well to make clear my point of view.

I believe that the democratic political movement in the civilized world is likely to overbear all opposition: that the immediate political future—hope, also, the ultimate political future—is with democracy. Thus, I am concerned to examine the terms on which the political democracy of the future can be an enduring and a worth while thing.

I am, that is to say, convincedly—even, I suspect, dogmatically—a democrat, in the sense that I believe thoroughly in popular government, in the equality of individuals, in political rights and responsibilities, as also in the high and substantive value of freedom in its own behalf. I do not, however, ascribe to political freedom any essential sanctity of ultimate or natural or inevitable rightness. I hold it, instead, to be an issue of time and place and circumstance, as fit only for those people that are fit for it. Democracy may easily approach to the worst of all forms of government—in danger of being no government at all, but mere license, disorder, revolution and counter-revolution—in the degree that any people falls short of meeting its severe requirements. A populace incapable of understanding its own needs, but attempting to rule in its own interest, is almost certain to blunder into its own great harm. It might better rely on such incidental welfare as may befall from an intelligent and efficient government conducted primarily in another interest. The present cult of democracy is indiscriminating. But democracy at its credible best carries with it the highest assurance of human welfare, precisely because it is the only government in which the welfare of the governed becomes the direct and the ultimate problem of the governors.

Political democracy is doubtless as readily possible in a collective as in a competitive economic order; perhaps, indeed, is more easily possible, in the sense of making call for a less vigilant intelligence. But I am not a socialist, if for no other or better reason than that I am unable to make out what the socialistic ideal—the family writ large, the brotherhood of man—would concretely turn out to be or do. I just

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don't get it. But further I hold with the practical working necessity of competition, and of competition within, as well as without, the economic field—only that also I seem to myself to know that it is not all wholesome, and that some of its unregulated workings are pernicious and extremely dangerous, not merely directly to the general welfare but to the very perpetuity of competitive institutions. A regulated competition I take to be imperative, if competition is to be and to remain a tolerable system. Successful competitive institutions, I hold, require an intelligent guidance, which, so far, they have measurably lacked, and in that lack have seriously and essentially suffered. The most dangerous menace to the competitive order I take to be with those partisans of it who resist resolutely all change or amelioration of it. There is a better service. Lowell, we recall, could best attest his love of his country by his intense loathing of its shame. I hold, as for that matter do also the Guild Socialists, that no system, thoroughgoing and systematically noncompetitive, could be tolerable at all. But the competitive system needs to be made tolerable and, as I hold, can be made tolerable, but not by the method of eliminating all coercive regulation and restriction of it.

Essential, therefore, to the success of those voluntary coöperations that are the characteristic traits of competition are the compulsory coöperations that are in ultimate principle socialistic. Government, for whatever there is of it, is so far an expression of the collective principle. Believing, therefore, in the present order of society in its general outlines, I believe also in the limited acceptance of the socialistic principle. To get along without government—a systematic and unlimited individualism, the competitive principle at its utmost extension—I esteem as little as a government coercive over the entire economic field, an unlimited and systematic collectivism.

So much as this, however, is obviously neither a radical nor a conservative pronouncement. Instead, it is a mere commonplace of practical policy. In the very institution of government the commonsense of the world has recognized the necessity of limitations imposed on individual activities, gain getting as well as other. Systematic *laissez faire* is as thoroughly discredited as systematic collectivism ought to be. The antithetical principles of liberty and of compulsion are good, each in its own place and degree. The problem is one of articulation and of adjustment between them. Wherever the ends or the methods of individual striving conflict with the common good, there is the sphere of the state, restrictive or coercive. Such is the plain meaning of the law and order jurisdiction, the enforcement of contracts, the decree of damages against torts, the enactment of pure-food laws, the license

or the regulation of products and of markets. When the individual effort at gain appears to concur with the common good, as in the growing of corn or the spinning of cotton—perhaps also in the culture of silk and in the providing of champagne, face powder, and cigarettes—the state may well keep hands off. All interference is a question of expediency and not of ultimate ethical imperatives, a problem of the costs and perplexities of the attempted control set over against the putative good to be achieved. But government, the coercive control of some things, is as necessary as are any of the things controlled. It is only the anarchist that condemns all collectively coercive activities.

There is, then, as little validity in the wholesale denunciation of collectivism as in the wholesale advocacy of it. The all-inclusive governmental problem is to conform the working of individual activity to the interests of the common welfare. For it is obvious that the sum of individual welfares can report the sum of general welfare only so far as the individual good is attained neither through parasitism nor predation. A rational society will combine liberty and authority. Always the problem is to draw lines of wise adjustment between the antithetical principles. Subjected, then, to the test of the common good, neither collectivism nor individualism can make its exclusive case. The proximate ideal of society, perhaps also the ultimate ideal (about this last I know something less even than I care) is that of individualism, collectively controlled and supplemented—competition under collective limitation. Never in society has there workably been, nor ever, as I hold, will there wisely be, nor ever—in the absence of cataclysmic and disastrous change—will there credibly be a systematic collectivism or a systematic individualism or, for that matter, a systematic and logical anything else. Under conditions of orderly and wholesome development, systematic collectivism equally with systematic anarchism is a dream of mad logicians. As well look for flourishing life under absolute zero of cold or in unlimited heat. Societies are not thus monistic. They are dualistic in principle of organization, precisely because they are societies made up of individuals.

I protest then against the wastes of intellectual energy and of practical effectiveness that attend the division of forward-looking men into opposing doctrinaire schools of thought as to ultimate ideals in social organization or as to the ultimate destination of society. I urge that all constructive emphasis be centered on the near-by things. The thing to do is always the next thing. It is a tragic waste of social forces to divide on remote and rear-ground issues. The immediate problems are difficult enough and are pressing. With the ameliorative program so conceived and so limited, the agreements are vastly more important than

the differences. Only so can the next things get done. Single-taxers and socialists, for example, should postpone their issues of ultimate institutional programs—their antithesis of individualistic as against collective ethical presuppositions—so long as the doctrinal positions concur in proscribing private property in natural bounty. Only when practical policies diverge because of differences in theory are theoretical dissensions to the purpose. When what to do is not at issue, it is folly to fall to quarreling about why. The immediate problems of progress, the policies common to programs ultimately divergent, are enough to absorb all present attention and effort. So long as for every type of progressive thought, a step is recognized as in the right direction, it is mere blundering to complicate the case with the issues that can wait—that as unactual are for the purposes unreal. Go along with your neighbor till your paths diverge. To the socialist all merchandising is parasitic. To me, these activities tend merely to proliferate into extreme wastes. There should then be agreement on measures of limitation—say, high license taxes. If actual taxation is working regressively on private wealth and income, socialists and individualists may unite in efforts toward a system less obnoxious to the ideals of both. Higher inheritance taxes? Yes, say I, who, in order that the competitive system may both endure and deserve to endure, would check economic stratification, would hinder the emergence of differentials and handicaps: if also the socialist says yes, as directed by his opposition to private property in general, we can so far work together instead of at cross purposes. Our differences are not actual. We desire the same particular thing, the thing at hand, only for different ends. Join we then to get the thing that we both now want. Later we may contest in another field. Sufficient unto each day are the quarrels thereof. I advocate progressive taxation in general in order to mitigate the economic inequality that in my view is putting in hazard the political and economic democracy of the competitive order. If to my socialistic neighbor the same policy appeals as a step toward the abandonment of the competitive order, it is still true that on either basis of policy the thing is good. Our hopes diverge merely as to what will come of it. I would have the officers of justice public functionaries, and justice free—not dear, and therefore only for the rich, and therefore not justice—as also now I approve of free schools and free police protection: and all of this not because I am a socialist but because I am not; because, solicitous to preserve the competitive order, I fear and deplore its inadequacies and excesses. Some among all the things that the socialist condemns I also condemn, but from the standpoint of another ideal. Not in denying his criticisms where they are due, but in admitting and then helping to remove them, is my best service to my

cause. That also the socialist wants these ameliorations because he is a socialist, leaves it none the less true that he wants them. So far we may work together. Because I desire equality in competition, I want to be rid of property in privilege, in tolls, in restrictions of output, in nostrums, in every ill good-will. With whomsoever also wants to be rid of them I am glad to make common cause. I want a fair and intelligent and adequate trial of the possibilities of competition for human welfare, before the question of its abandonment for unknown things is to attain the dignity of a present issue. Thus with another man who takes these methods of amelioration of the existing order as merely steps toward getting altogether rid of it, I have no present quarrel. That he wants to improve it is enough for me, no matter what may be his ultimate end. I also want to improve it—to the ultimate end of preserving it. So improved, I hold it likely better to serve the ends of human life than any new thing that he can offer as substitute for it. My mistake? It may be. We shall see about it then. Meanwhile now he is welcome to his own line of prophecy, as later, in its due and appropriate time, he will be welcome to his own line of effort, divergent from mine.

And now I arrive at positions perhaps more controversial. The society to which as working ideal I pin my faith is a consistently democratic society, a society of competitive equality; not, however, a society of economic equality, so far as individual powers and accomplishment must and will differ, but of inequality limited solely to differences in individual ability and achievement; a society free of differentials of privilege or of inherited opportunity; a society in which men may be unequal solely by the title of individual gifts and accomplishment, but equal still in all their objective conditions; a society of equality only in the sense of equality of opportunity, where it can be only in the subjective sense, never in the objective, that a man have no chance, that he arrive in the world not less obviously damned into it than born into it. And this means that a competitive society progressively stratifying through the passing down from one generation to another of the differentials inevitably emerging in each generation, I hold to be a society that by the test both of its worth and of its promise of endurance is grievously sick.

This credo, I admit, or that part of it that sounds in the ethical emphasis, makes a not much better claim to validity than may attach to any mere act of faith. Such with me in point of derivation it doubtless was. I offer now no support of it; though, as *ex post facto* to its getting, I think I have come into some reasons for holding it—considerations of the aggregate serviceability of income, of competitive

consumption, of standards of living imposed by the haves that can and pursued by the have-nots that can't; of the rainbow fading-out of affirmative enjoyment into drab necessity; of the racial menace of declining birth-rates; of the dreary futility and the spreading harm of the decorative life for women—questions for the discussion of which there is here no time.

All the more urgently, then, not as matter of inscrutable faith but only of sheer factual outlook, I stress my assumption that democracy is coming. And, if so, I insist, economic institutions that shall make room for it there must imperatively be, on penalty ultimately of a fundamental reconstruction of society or of the debacle of civilization. New social forces are preparing. With the man whose ideals of worth incline to political or economic aristocracy I offer, I repeat, no confident issue. His faith—just another faith it is—may be the right one as to the organization of society which, if attainable and workably enduring, would be best. It is doubtless arguable that with the intelligent, according to the test of their own or their progenitor's success in the pecuniary competition, shall wisely go the governing of society, while the rest of us shall accept our welfare as an incidental by-product of a government conducted by them in furtherance of their own interests and purposes. But I judge that in any case this is not to be. In this connection I note a recent declaration of faith by Mr. Charles M. Schwab: "I am not a socialist. I believe in aristocracy; but only because I believe that the aristocracy of this country is the aristocracy of men and women who do things—the aristocracy of accomplishment." More important with me, however, than the faith that the aristocratically competitive order ought not to be, is the factual conviction that it cannot enduringly be, and that the effort to achieve or to maintain it is fraught with great intermediate dangers and penalties. I proceed on the frank assumption that, for better or for worse, political democracy is to come, and that, as intelligently as may be, place must be made for it.

But it is neither mere faith nor dogmatic prophecy to assert that political and economic democracy cannot exist apart. It is a foolish temerity and an improvident stupidity to attempt to articulate political democracy with economic aristocracy. One or the other must in the long reckoning perish. On the issues both of fact and of worth I am a democrat in the economic sense because I am a democrat in the political sense. I take it, therefore, that the modern world has to face the question whether it will have political democracy under the competitive order as over against some form of democratic collectivism. This issue needs squarely to be faced. To plan for competition and for aristoc-

racy is to hazard both. I plead for radicalism to conservative ends, for a progressive conservatism.

I hold it, therefore, to be our enduringly serious blunder in the conduct of the great war that we failed to realize the long meanings of the financial policies that we followed. We have now promptly to take account of our newly emerging dangers. In point of degree the war has vastly added to the perplexities of our institutional life by further solidifying the economic stratification of society. The world has now to reckon with 250 billions of war debts. The peace with Germany was made to turn upon adding to its domestic war debt further billions of debt to be externally held and collected. Consider the domestic debt alone. These forty billions of war bonds are a promise that for an indefinite future from the taxpayers of Germany the bondholders shall enjoy a two billion dollar revenue. We did not substitute our own claims for these but added ours to these—and all of this is our solicitude for the domestic peace and the institutional democracy of Germany. Not only do we leave it to the German taxpayers instead of to the malefactor classes to provide our scant indemnity—and to our own taxpayers to meet the deficit—but we allow to the malefactor classes two billion dollars of annual revenues at the cost of their victim classes—enhanced class wealth and enhanced mass poverty—not that we have so little care but so little understanding of democracy and its needs. Even if the rulers of Germany shall cease to plot wars, the peace which we leave to the German people they cannot abide. For them it is an intolerable poverty that has its cause and correlate in class wealth. Germany will hardly win through to democracy excepting on terms of some sort of repudiation; peaceable conceivably, disorderly probably, revolutionary possibly. We have made no gift of democracy. Democracy is, I still believe, to arrive in Europe, but only as the need and aspiration gain the necessary strength to override the new barriers that the war has erected and that the peace has reinforced.

I urge, in sum, that the present problem of the institutional conservative is the establishment and the maintenance of economic democracy. Failing of this, we shall at the best provide solely the forms but never the realities that are at the heart of democratic institutions. We shall decline to the dangerous and temporary equilibrium of the servile state—the aristocratic competitive order—to end either in a return finally to the ways of equalitarian competition, or in social disintegration, or in a drifting out upon the unplumbed, uncharted, and perhaps shoreless seas of democratic socialism. Or there is, it may be, one other way: Guild Socialism may get a hearing, a captivating and not incredible compromise between the collective and the competitive principles, equally unfittingly to be named either socialism or anarchism.

For those of us, therefore, who, convinced that democracy must come, are glad to welcome it—who are not socialists, who instead regard with favor the going institutions of working compromise between the extremes of systematic anarchism and systematic collectivism, who look ahead in limitless foreboding to the hazards and horrors of any cataclysmic change, who have scant faith in the promise of any better order into which these changes could finally lead—it is for us to ask ourselves the terms on which the political democracy that is to come can be harmonized with the competitive economic order. And thus, once again, we return to examine what, in its economic aspect, the war has meant, the problems which it has imposed, the solutions that it has left possible. For we believe in political democracy as also we believe in economic democracy, in the sense, be it repeated, that we hold neither to be in essentials enduringly possible excepting in the presence of the other.

It is now to be emphasized that the world war has not left the world impoverished, for the sole reason that it could not. Wars are supported out of current social product simply because they have to be. It is present dearth as it is present death that war imposes. The poverty of public debts is a fallacy, excepting in the purely separatist sense that a national debt may be held by foreign creditors—the consumption of the warring country supported out of the current supplies of the creditor country. But just as in a national inventory of wealth all domestic relations of debt and credit cancel out, so in a world accounting all international debts must disappear.

In the main, these war debts are domestically held. And such part of them as are held outside the country of their issue are held in the allied countries. The present tragedy of want in Europe reports, for the most part, not the impoverishment of resources by the war nor the national indebtedness remaining over from it but only a paralysis of current industry—a war legacy of disorder and disorganization, or the dire gift of post-war diplomacy—new imperialisms, and continued wars. It is not chiefly by the depletion of capital funds but by the interruption of income flow that Europe lacks for supplies, precisely as in the war years it was not out of capital resources but out of current production that the war was supported.

No? But it has become as commonplace as self-evident that no future item of product can function as supply for either the civilian or the military needs of any warring country. Neither war loans, nor war taxes, nor any other loan or tax, can make possible the present consumption of a prospective product. Old Sir Thomas Browne saw this truth clearly: "He had caught a great cold had he no other clothes

to wear than the skin of a bear not yet killed." An exterior loan merely places a warring nation in control of exterior current products, through the promise of a later and offsetting return of the products of a later time. Domestic loans control only domestic goods of current supply. Like taxes, loans distribute purchasing power over current goods in favor of the government; but, unlike taxes, they provide for a later redistribution of the goods that the future will produce. Loans and taxes differ not at all in point of the current national resources out of which the support of the war must be provided. The differences attach solely to later accountings of principal and interest to creditors, creditors who might instead have been taxpayers. Equally, whether by loans or taxes, subtractions from current individual incomes there must inevitably be, so far as war is to be supported at all. Whoever can buy bonds can pay taxes. The taxes terminate in slips of paper that are receipts, the loans provide slips of paper that are the beginnings of other things—contractual slips of paper, promising redistributions of future incomes and secured by first liens against these future incomes. But the future incomes do not thereby become presently available for present needs. The bonds induce the voluntary grant of present income. Taxes get the same results coercively out of the same resources of present goods. Distinctions of equity, tactical expediency, administrative complexity, class pressure, and general intelligibility are another matter. Doubtless the opposition to war is less if profits to many and costs to none are in general expectation.

Equally, for the most part, is war support impossible out of wealth remaining over from the past. Most of it—houses, lands, factories, equipment, furniture—is unavailable for present consumption either civilian or military; it is goods serving as intermediates toward product but themselves not final products for consumption. Stored up war supplies—munitions, equipment, war bread—are doubtless possible, but only in relatively meager volumes. Something also is possible, so far as deterioration can practically be carried, in making past production directly tributary to present emergencies. So again, goods for civilian consumption may not merely be economized—consumption restricted—but can be worn out without current replacement, whereby productive forces may be so far set free for military purposes. But the sum of all of these levies on the past bulks small in relation to the total war requirement. In the large it still holds true that present war, like present peace, must pay its way as it goes.

The irrelevancy of bullion supplies, of banking reserves, and of facilities for currency expansion—or the worse than irrelevancy—is thus evident, so far as the fundamentals of war finance are concerned. Wars are questions of those margins of productive energy and output that

are left available for military purposes, after civilian consumption is provided for. Governmental outpourings of clipped coin or of paper money are long-discredited fallacies. But equally also was our vaunted preparedness in gold reserves for credit expansion a mere preparedness for inflation. The realities in the situation these influences barely brush. Easy credit is not easy or plentiful product. New dollars will not clothe or feed men. More of the dollars is not more ships, cannon, ammunition, or more men to be spared from industry for the camps and the firing lines, or for supplying military goods to the embattled men. As armies march on their stomachs, so wars proceed on something more substantial than mere necromancy—on a more effective provisionment than the present shadows of coming things—not on the present worth of no matter how credible promises, secured never so well against incomes which as yet are not. Social unrealities a plenty there are in competitive individual wealth. But the actualities of war leave no place for intangible assets. True it is that one may sell his individual wealth and buy bonds. But not all may sell to one another to the result that all may buy bonds. And even if they could the supplies to be purchased would be no whit the greater.

Our credit devices of war finance, whether wise or unwise by the test of their total effects, and whether just or unjust by the test of the ultimate distribution of burdens, were processes that for every strictly war purpose moved merely upon the surface of things. For a people like ours that must provision and munition its own war—to say nothing of financing its associates—the essentials of success lay in the current productive efficiency of its industry, as supplemented by the most rigorous economy in civilian consumption—the utmost speeding up of the one, the utmost practicable retardation of the other. The past but little and the future not at all could serve for the purpose. At the best, the financial processes were merely devices of guidance and adjustment.

Certain other issues become equally clear. The choice of financial policies lay not between taxes or loans on the one side as over against credit inflation on the other. It was between taxes and inflation. Taxes from ultimate income and loans from ultimate income are doubtless indistinguishable in certain of their effects. If only the funds are secured out of ultimate incomes, it need not matter that the scrap of paper that is a contract one may use as collateral for borrowing and that the scrap of paper that is a receipt one can not. The bonds that so readily lend themselves to inflation need not of strict necessity be so used. The banks might be led to refrain from carrying the paper, or could have been prohibited, or might have been subjected to such re-

serve requirements as to have lacked the disposition—measurably difficult expedients, doubtless, all of them. But the decisive fact is that no ultimate income borrowing could have been made to suffice for the need. For a great war this method will not serve. No credible rate of interest will attract the necessary degree of sacrifice, imposing sufficiently drastic subtractions from individual incomes and the necessary restriction of individual consumption. This can be accomplished, not by the methods that work through inducement, but only by the taxes that leave no choice. Nor could any rate of interest seriously effective in this connection have avoided so drastic recapitalizations of property and security values as to precipitate a financial hurricane. And correlative bank rates must have been maintained, or directly or indirectly the banks would have absorbed, on inflation terms, the issues of bonds. If we were to rely on gigantic borrowing for war funds, we had to follow the inflation method. Taxation was the sole alternative.

Doubtless it must be admitted that drastic taxation—there was no escape from something drastic excepting in a small war—carries with it dangers similar to those of high interest borrowing, but only in minor degree. With narrowing residual incomes, some holders of securities and other properties will be pressed to sell to get free funds. Interest rates must advance appreciably, but not at all in the degree attending the loan process—precisely because the necessary restrictions of civilian consumption are left not to choice under the inducement of higher interest rates but instead to the coercion of taxes. It is in favor of taxes also that when one pays the tax he knows that he is so far the poorer. The buyer of bonds feels himself an investor, as actually he is. Bonds placed with banks or carried by them for buyers bring inflation, huge and swollen national debts, future taxes, inflation-swollen, upward shifting prices—and therewith such increased civilian economy as rising prices on the one side may afford as against rising profits on the other. Borrowing from ultimate incomes, in the degree of its possibility, brings only a slight inflation, no appreciable upward shift of general prices, future taxes, economy of civilian consumption, sharp advances in interest rates, and a disastrous readjustment in property and security values. Taxation brings an even less appreciable inflation, a closer approximation to stability in prices, a more marked economy in civilian consumption, relatively slight changes in interest rates, and a relative immunity from financial disturbance. Had America followed the English rates of taxation, it need not, I believe, have resorted to either type of borrowing.

And here the analysis returns to my main point of emphasis. Taxes avoid bonds. Because the war was financed in the main by the inflating

bond-credit method, the world faces a situation altogether new in its seriousness.

It is, in strictness, no part of my problem to appraise the weight of the war costs that somehow we carried and somehow had to carry. If, relatively to our carrying ability, these were so light that non-inflation methods of loan finance could have served, so also the alternative taxes could have been light. Modern war, waged even in a nearby field, requires for each soldier in the ranks two tributary civilian workers. Our three and one half millions of men, allowing for their transport requirements, called for eight or more millions of tributary producers. The bread-winners of the country numbered approximately forty millions, many of these, however, not socially productive. The less than thirty remaining millions had to make good these withdrawals of men and to supply the soldiers and tributary workers with their quotas of goods of ordinary civilian requirement. I take five million of combatants to have been the limit of our utmost possible contribution to the war. As it was, our supplies ran continuously short of our commitments—warships, freighters, transports, submarines, airplanes, cannon, machine guns, small arms, ammunition, blankets. It was *things* that were lacking for our war funds to buy.

Whoever holds then, as I do not, that our per capita product of civilian goods for civilian consumption was maintained in the war years, proclaims merely, and as I think exaggerates, the ineptitude of America's economic participation in the war. Even if, in the speeding-up aspect, our war record was all that is claimed for it as offsetting the enormous war absorptions of men and of products, the record would remain still profoundly humiliating. We came perilously near to losing the war. It is only in the degree of possible civilian economies that, in the main, war is now and always has been possible. Both the magnitude and the methods of modern warfare are solely explicable through the increasing margins of product available, above civilian requirements, for the things of war. In the progress of the industrial arts, therefore, are the explanations for the surpassing size, the surpassing expensiveness, and the surpassing horrors of modern war. So far, then, as the wisdom and spirit of peace lag behind industrial progress, the primitive man may easily have been the more fortunate man—our tree of knowledge heavy with bitter fruit.

In some sense it is beside my point, also, to stress further the fact, that those inflation methods have vastly swollen the monetary statement of the national debts. But in this fact is the decisive argument against deflation. The bond issues have mortgaged our monetary policies. The governments of the world are near enough to fiscal insolvency

already—not, however, I repeat, to national insolvency. The injustices also are great enough, with the debts restricted to their present burden. The men who forfeited positions and earning power to face the chances of death have enough to pay if, winning out to return at all, they repay to us stay-at-homes in cheap dollars the cheap dollars that we advanced as support of their dangerous adventure. And on these terms also their children and their children's children will have enough to pay to ours.

Conceivably, I admit, it might be good ethics—if only also it were possible—that future generations should share with the present generation the costs of a war that, in no small part, will enure to the future advantage, even though it be also probable that these coming generations will have their own wars to fight—and, it may be, the more of them to fight by the very fact that, vastly increased in numbers, they must find their living in a world grievously impoverished by our own excesses and prodigalities. But this thing—take it to be never so just—cannot be. In that future time this present generation will rank as a past generation. Dead and departed, it can have no payments made to it. No payments can ever be made by one generation but to itself. It will be only the grandchildren of some of us that will get paid at the cost of the grandchildren of others of us. Solely in the sense of this redistributive bearing on the future, can burdens be passed on. So far, truly, as the benefits of the war are enduring, there is a gift by us to the future—but a gift in its nature common to the children of all of us. But for some of these children the gift is to take on also the quality of a pecuniary asset. The other children will pay these first for the gift provided for all. Wisely, then, these inheritors of debt in favor of correlatively inheriting creditor grandchildren will adapt to their own case Lloyd-George's challenge of the British land system: "Why are fifty millions of us Englishmen trespassers in the land of our birth?"

Nor is this all of the truth. In large part the bonds were purchased out of inflation-awarded margins of profit. The masses who paid once in the form of these margins the money by which the profit-makers bought the bonds will later pay in taxes the cash to meet the accruing interest charges and finally also to retire the bonds.

I am not concerned to join issue with anyone on the question of the practical inevitability of these enormous national debts. I admit that, in the lack of any general understanding of their ultimate meanings and their long effects, in the easy and improvident opportunism of political life, and in the want of wisely brave leadership, nothing else was credibly possible. I charge no faults of purpose anywhere. But that the wealth of the country would not have borne whatever share of

the general burden it could recognize as its duty I do not believe. Had the social necessity and the personal and institutional justice of the conscription of current income been understood—the conscription of wealth was nonsense—I believe that the war idealism of America would have accepted the taxes as contentedly as it accepted the selective draft. The truth is merely that we didn't know. We had not thought it out. The fundamentals of war finance were, even to the economists, an unknown field. We had busied ourselves with other things—the processes and the problems of peace. Thus by error and drift we allowed our war for political democracy to go far toward making democracy impossible, carrying us thus dangerously forth in the direction of those economic institutions in which political democracy cannot thrive. We have blundered into our almost irremediable harm. We have mortgaged our political institutions, and therewith have hazarded either the perpetuity or the worth not only of these but of the competitive economic order. Both must be democratic if they are to deserve to endure, probably also if they are actually to endure.

But most of the evil effects of the war, as also some of the good, will pass with the lapsing years. The international bitterness will disappear, even if to the sole end of making place for others. The injustices, the hardships, the suspicions, and the protests attending the inflation process will fall out of recollection. The earth scars will grow green with the changes of new springs. The war dead passed promptly out of the domain of our problems. The war-maimed and the war-invalided will early arrive at their infallible ways of cure. Time will shortly have assuaged the pangs and stilled the sobs of bereavement; or, if there come no earlier surcease, to these pangs the sun and the rain will offer solace and these sobs the grass will muffle, the things of yesterday ranking with all the other tales that are told—the done and gone no part of that human experience to which the current life is granting its new meed of happy living.

But still not all things pass. These institutional effects of the war in the stratification of wealth will remain with us. To these nightmare debts no similar principle of passage or of mortality attaches. Their life stretches indefinitely beyond the individual life, to match it, it may be the span of racial or institutional duration. But surely, as I hold, from this long-enduring body of death, the democracy of the future will greatly stir to shake itself free. I believe also that it will succeed, and will succeed within the limits of the orderly development of competitive institutions. But I hold that, failing of the wisdom or the determination for this effort, and acquiescing in this burden of debt, democracy cannot remain democracy.

But, after all, how, within the present institutional situation, with its actual distribution of leverage and power, shall the democratically-minded masses hope for success? Revolutionary thinkers declare it to be impossible, consistently with the orderly processes of political development. My belief—my faith, if you please—is other. I hold that it is precisely through the progressive understanding and the enlightened decision of the classes with which this power and leverage lie—through their growing recognition of the ways of wisdom, of obligation, of provident adjustment and of sagacious coöperation—that the thing will come. And if it does not so come, it will be solely that the wisdom has been lacking to face fairly what the alternative will mean. Now, as always in social problems, the primary need is to understand.

The first task, then, of political and economic sagacity I take to be the retirement of these debts—through the assertion of the claim to all further emerging increments upon the social estates, through income and inheritance taxes, through severely high excises on middlemen activities, and even, if need were, as in Europe need actually is, through capital levies. If we allow the evils resulting from the war to run on, unmitigated, the consequences in social unrest, in lowered labor morale, in extravagant and destructive radicalism, in riot and, it may be, in attempted revolution, will cost us—and will cost all of us—vastly more than a courageous and even heroic settlement of our problems now with the means at hand. Always and everywhere it is for each present generation to protect rather than to impair the resources of the coming generations and to foster rather than to mar their liberties.

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THE DISCOUNT POLICY OF THE FEDERAL RESERVE BANKS¹

The federal reserve banks have now been in operation for a little more than six years, a period much too short, even if it had been of more normal character, for the reserve system to reach the full measure of its development. Modifications in business and banking practice and in public opinion are involved, changes in usage which are not made overnight. But the last six years have been far from normal. Throughout the entire period, the development of the reserve system has been influenced by the presence of unusual conditions and requirements. In some important respects, these abnormal conditions have hastened development—forcing a not altogether healthy growth—while in other directions development has been positively retarded. Experience with operation in normal times is required to provide a basis for definite conclusions regarding the regular activities of the reserve banks and the policies which should be adopted in their management. This experience will not be available until the reserve banks have extricated themselves from the position in which they have been placed by the war and have passed through all the stages of at least one peace-time business cycle.

Addressing an assemblage of economists, it seems appropriate that I should engage directly in an examination of fundamental monetary and banking principles as they are illustrated in the structure and working of the reserve system. I am the more inclined to adopt this method of approach because whatever may be the case in the operation of particular commercial banks, monetary and credit problems of a very general nature are matters of primary and immediate concern in the formulation of the policies of central banks.

In what may be styled its monetary as distinguished from its banking consequences, the effect of the establishment of the reserve system has been more immediate and is more clearly and completely manifest. These monetary changes are notable, not only on account of the rapidity of the changes themselves, but also on account of their extraordinary magnitude. In brief, the available supply of credit was more than doubled as a result of the establishment and operation of the reserve banks and this huge addition to the supply of credit was fully absorbed in the course of less than six years. Moreover, all future additions to the stock of gold in the country will provide the basis for at least twice as great an increment to the volume of credit as was possible in the later years of the national banking system.

Before 1914, in periods of active business and consequent intense

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demand for credit, the money in the vaults of the national banks, including the notes of other banks, was never less than one eighth of net deposit liabilities, and always more than a sixth of demand deposits exclusive of those due to other banks. For state banks and trust companies, working under lower legal reserve requirements, cash holdings appear to have been no more than one tenth of individual demand deposits. Taking both classes of banks together demand deposits of individuals and corporations seem never to have exceeded eight times the total amount of money held by the banks.

With the opening of the reserve banks in November, 1914, reserve requirements for member banks were modified and an even more radical change was made by the important measure amending many provisions of the Reserve act which became law in June, 1917. All cash reserve requirements for member banks were abrogated: balances at reserve banks of 7, 10, and 13 per cent of net deposit liabilities of country, reserve city, and central reserve city banks respectively, together with a 3 per cent balance for all banks against time deposits becoming the sole legal reserve requirement. It is convenient and sufficiently accurate to take a balance of 10 per cent of net deposits or 13 per cent of individual demand deposits as the average requirement for all of the banks. Of course, quite regardless of legal requirements, every bank must have some money on hand for counter payments, but the amount needed for this purpose has been found to be surprisingly small—about 3 per cent of net deposits or 4 per cent of individual demand deposits.

The cash regularly held by the national banks, even in periods of intense demand for credit, 13 per cent of net deposits, it will thus be seen, was sufficient to provide an adequate amount of till money and also the required balance at the reserve banks. It is evident, therefore, that the supply of credit has been enlarged by the full amount of the loans which have been made by the reserve banks, and by an amount greatly exceeding those loans since loans at reserve banks in part serve to increase reserve balances upon which member banks may in turn incur a tenfold liability.

From reserve deposits by member banks and payments on capital stock account, the reserve banks have received something like a billion and a half dollars, almost entirely in gold. These resources would have made possible a very considerable increase in the supply of credit. But the increase would have been comparatively small if the reserve banks, like the Bank of England, had been empowered to issue notes only under restrictions which make the notes virtually gold certificates.

Power to issue federal reserve notes as credit instruments has increased the supply of credit in two ways. In the first place, it has enabled the reserve banks to acquire large amounts of gold for banking

use by substituting reserve notes for gold and gold certificates which were held by the banks for till money purposes or were in circulation outside the banks in the pockets of people. Between a half and three quarters of a billion of dollars appear to have been acquired by this process of substitution. It was a process which was much facilitated by the elimination of the legal cash reserve requirement for member banks, since only lawful money would meet that requirement, while reserve notes are entirely satisfactory for till money purposes.

Although the power to extend credit in the form of the federal reserve note has been of great importance as a means of acquiring gold, it has been of vastly greater importance as a means of retaining it. Every considerable increase in the volume of deposits subject to check is accompanied or speedily followed by increasing requirements for some kind of money that will pass readily from hand to hand. In the absence of additional issues of bank notes or of government paper money, this demand absorbs gold which would otherwise have been available for banking use. Between June, 1914, and June, 1919, for example, the estimated stock of money in the United States outside the Treasury and the banks, not including subsidiary silver, increased by more than \$1,900 millions, from \$1,600 to \$3,500 millions, or by nearly 120 per cent. During the same years demand individual deposits increased \$12,700, from \$10,700 to \$23,400 millions.

There appears, then, to have been an increase of one dollar in the money in use outside the banks for every six dollars of increase in that portion of the circulating medium which consists of deposits subject to check. I am by no means confident of the validity of this exact proportion, based, as it is, on the experience of a short and abnormal period, and on figures which in the case of money are in part estimates, and in the case of deposits involve uncertainties of classification. The estimated stock of money for 1914 is probably too high, and the increase to 1919 does not take account of some seepage of reserve notes to near-by foreign territory. On the other hand, the estimate of deposits is doubtless swollen by the inclusion of the entire amount of the unclassified deposits of the various banks. Finally, it may be observed that confidence in the substantial correctness of the ratio is strengthened by the close approximation to a six to one ratio between deposits and money outside the banks in both 1914 and 1919.

We are now in position to compare the power of the banks to expand credit under the federal reserve system with that under the national banking system. Before 1914, an increase of \$1,000,000 in demand individual deposits would absorb nearly \$300,000—one eighth of the increase in deposits as a reserve and one sixth for use outside the banks. In the later years of the national banking system, when the supply of

bonds bearing the circulation privilege was exhausted, additional gold was the only means of meeting practically all of this requirement for more money with increasing deposits. Under the reserve system, a similar increase of \$1,000,000 in deposits would involve a similar increase of one sixth in the money outside the banks, 4 per cent for till money purposes and a 13 per cent balance at reserve banks, a total of more than \$330,000, about \$30,000 more than in the preceding calculation. It is important to note that this requirement, though larger, can be entirely satisfied by means of credit extended by the reserve banks—credits which on the basis of a 45 per cent reserve at reserve banks require no more than half the amount of gold and other lawful money which was absorbed under the national banking system. Stated in another way, it may be said that an additional million dollars in gold now provides the basis for about \$7,000,000 in credit, contrasted with less than \$3,500,000 before 1914. Even with a 60 per cent ratio against notes and deposits at the reserve banks, credit can be expanded 50 per cent more than formerly. This increase in the power to extend credit is the most fundamental single change which has followed from the establishment of the federal reserve system.

The enormous increase in the supply of credit since 1914 is not, however, entirely due to the operations of the reserve banks. More than a billion dollars in gold was imported in 1915, 1916, and the first half of 1917, none of which would presumably have been acquired if there had been no war in those years. On the contrary, the expansion of credit under the reserve system, on the basis of our own stock of gold, would almost certainly under peace-time conditions have so influenced the balance of international payments as to have occasioned gold exports. An intense demand for American commodities, accompanied by abnormal credit expansion in Europe, both direct consequences of the war, not only removed the restraining influence of gold exports but also provided the basis for much credit in addition to the huge supply which became available through the economy of gold under the reserve system.

But the war did much more than shelter our stock of gold and increase its amount; it also occasioned the far more speedy utilization of our enlarged supply of credit than would have been possible under peace-time trade conditions. An extraordinary supply of credit was absorbed by an equally extraordinary demand. Within five years from the opening of the reserve banks in November, 1914, the volume of outstanding credit was more than doubled. Credit expansion on so colossal a scale could not have occurred during a similarly short period of peaceful business activity. The aggregate demand for credit would not be sufficiently great, to say nothing of the much smaller effective de-

mand, that which meets the credit tests of the banks. During the war, the demand for credit was abnormally great and it was an effective demand because it was largely based, first upon the credit of the governments of Europe, and later upon that of the federal government.

After the armistice, the intense demand for credit continued, gradually shifting, however, from the government to the business community. The conditions which made possible the continuance of trade activity after the armistice were fundamentally similar to those which are present at the beginning of a period of prosperity, following a period of depression. Although trade had been feverishly active for more than three years, there was still a large supply of credit available at low rates. Moreover, and this is a matter of far greater significance, there was, unlike the situation after some years of prosperity in a peace-time business cycle, an evident widespread scarcity of goods. In these circumstances, an intense demand for credit to be used in the purchase of goods could not fail to develop, since it was reasonable to anticipate that no difficulty would be experienced in marketing them at an advance in price. Finally, toward the close of 1919 the available supply of credit was approaching a condition of complete utilization. A few months more of credit expansion at an undiminished rate would have left no supply of credit in reserve with which to meet an emergency. Even if an ample supply of additional credit had still been available at that time, the opinion may be ventured that another limit on continued credit expansion was not far away—the deterioration in the average quality of the loans of the banks. A period of readjustment and liquidation was inevitable. Liberal credits at low rates in 1920 would have deferred its advent somewhat, but with the certain consequence that the difficulty and losses incident to readjustment would have been materially enhanced.

After this unavoidably long introduction, I am finally ready to take up the subject proper of my paper, the discount policy of the federal reserve banks. At the outset, it is necessary to reach some conclusion as to the responsibility that rests upon the Reserve Board and the management of the reserve banks for the credit expansion of the last five years. For by far the greater part of that expansion responsibility clearly rests elsewhere. The volume of credit has been subject to conditions and influenced by policies which the management of the reserve system could not control. This is obviously the case as regards the large additional supply of credit which became available as a result of the gold imported before we entered the war. Up to that time, the loans of the reserve banks were of quite insignificant proportions.

After we entered the war, the loans of the reserve banks increased by leaps and bounds; but for the policy of war finance which occasioned

these loans and the manifold greater loans of the commercial banks, the Reserve Board was not responsible. That it is possible to finance without inflation expenditures as great even as those incurred by the United States government during the recent war, I am firmly convinced. That we could not finance that war without credit inflation, I am equally certain. The primrose path of inflation had the backing of public opinion; the administrative machinery and perhaps the constitutional power for adequate taxation were lacking. A little less waste in expenditure, slightly heavier taxation and slightly higher interest rates on government bonds might have characterized our war finance program, with the desirable result that there would have been somewhat less of credit inflation. But I must not allow myself to digress further on this tempting subject. The important point in the present connection is that whatever the financial policy adopted by a government in time of war may be, it is the imperative duty of the management of a central bank to coöperate loyally in executing that policy. The Reserve Board and the officials of the reserve banks could offer advice and criticism; they could not decline to do their part in executing the policy of the Treasury.

Presumably there would have been no less use of credit in financing the war if the reserve system had not been established. In that event, the government would doubtless have met requirements for additional money for use outside the banks by issues of paper money which would surely have become inconvertible. The economy of gold under the reserve system permitted credit expansion on an unexampled scale without suspension of specie payments. It was none the less inflation.

One of the results of the extensive use of credit in financing the war was to place the banks of the country in a position of extreme dependence on the reserve banks. At the time of the armistice the reserve banks were lending member banks nearly \$1,800,000,000 and in addition held nearly \$400,000,000 of bills bought in the open market. As general liquidation of loans at the reserve banks, unless due to the receipt of new gold, involves much greater contraction of loans by member banks, it is probable that they must continue to rediscount heavily there for many years to come if not indefinitely. No progress whatever in reducing these obligations has been made during the two years since the armistice. On the contrary, borrowing at the reserve banks has increased by nearly 50 per cent, loans standing at \$3,126,000,000 on November 5, 1920.

It is only for this after-the-war increase in the loans of the reserve banks and the more considerable increase in the loans of the other banks thus made possible that the management of the reserve banks can be held to be in some measure, but by no means primarily, responsible.

Government financial policies were the controlling factor in the situation for at least a year after the armistice. The policy of borrowing at abnormally low rates was insistently maintained by the Treasury. It does not fall within the scope of this paper to discuss in detail the wisdom of this policy. Much can be said on both sides of the question. I content myself with observing that it was my opinion at the time, and the subsequent course of events has not altered the conclusion, that a distinctly higher range of rates on government certificates in the summer and autumn of 1919 would have been a wiser policy. But even if the Federal Reserve Board had been convinced that the after-the-war financial policy of the Treasury was unwise, as to which there is no evidence one way or the other, I do not think the board could have refused to coöperate in executing that policy, taking an independent course and making a sharp advance in discount rates. It is, however, reasonable to surmise that the policy of the Treasury after the armistice would have been subjected to more searching scrutiny if the Reserve Board were less heavily weighted with Treasury officials. When account is taken of the future frequent borrowing requirements of the government, the retention of two Treasury officials as ex-officio members of the Reserve Board seems most inexpedient. Borrowers on a large scale are not the most desirable of persons to be selected as directors of any bank. The Treasury as a borrower in times of peace should not be in position to exert a considerable, much less a controlling, direct influence on the discount policy of the reserve banks. Merely as a matter of simplification of administrative machinery, also, the functions of the Comptroller of the Currency should be transferred to the Reserve Board and the reserve banks. So much of diminution of direct Treasury influences as is involved in this proposal seems certainly desirable. Whether the Secretary of the Treasury should cease to be a member of the board is a question as to which a definite answer is less easily given. Upon the whole, I am inclined to think that the presence of the Secretary is desirable. The intimate understanding of the financial situation that a Secretary may gain as a member of the Reserve Board can hardly fail to be of advantage to him in the conduct of his office. The Secretary of the Treasury, as a member of the Board can also do much to defend the reserve system from unreasonable demands on the part of the public and above all from political onslaughts.

Returning once more to the course of credit under the reserve system, there remains for consideration the experience of the last twelve months, during which the reserve banks have been in position to exert complete control over the supply of credit and have also been able to take independent action. At the end of August, 1919, the gross debt of the

government reached its maximum and though the Treasury continued to enter the market as a chronic borrower, its strongest ground for insisting upon the policy of liberal loans at low rates could be urged no longer. With evident reluctance Treasury control of the discount policy of the reserve banks was relaxed and seems to have been entirely relinquished with the last issue of $4\frac{3}{4}$ per cent certificates in January 1920.

Full responsibility for the credit situation was regained in circumstances which imposed a severe test upon the reserve system and upon its management. After nearly five years of unexampled business activity, accompanied by unprecedented credit expansion and advances in prices, the activity of trade was unabated, the demand for credit was if anything more intense and prices were still moving rapidly upward. Beneath the surface, there were indications that even though large supplies of additional credit were still to be had, a period of readjustment could not be long postponed. Liberal credit was no longer, as at the beginning of a period of activity, serving to stimulate production and direct industry into promising channels. It was rather tending to disorganize industry, subjecting it to an increasing extent to speculative influences, to wage disputes and numberless other strains. The average quality of the loans of the banks was becoming less satisfactory because of these conditions in industry as well as on account of extensive sales of goods in foreign markets on long credit terms. In short, the situation at the end of 1919 was one which by no possibility could be corrected by the application of additional supplies of credit. A check on further credit expansion followed by some contraction was the one sure remedy and that remedy would have been quite as much needed even though an abundant supply of additional credit had been still available. It is, however, by no means certain that the Reserve Board would have taken measures to restrain credit during the course of the winter and spring of this year if the power of the reserve banks to extend credit within the limits of legal reserve requirements had not been nearly exhausted. The successive advances in discount rates made during the first half of the year were not then entirely the expression of a voluntary policy. It was a policy which in large measure was enforced by the reserve position of the banks. It was necessary to check further credit expansion. Otherwise, the reserve banks in the course of a few months would have held no reserve above legal requirements as a basis for credit to be used in meeting an emergency. To go on expanding credit until the last available dollar was employed was indeed our former practice, and the initial stages of the transition to a period of readjustment were always marked by crisis and panic. It is one of the inestimable advantages of the reserve system that the

brakes were applied before the supply of credit was entirely exhausted and before trade activity had culminated in a crisis. We are still in the midst of a period of necessary readjustment and liquidation, but the immense superiority of the reserve system as compared with our former means of meeting similar situations is already conspicuously evident.

Although the process of readjustment is not completed, experience already furnishes a basis for fairly definite conclusions regarding some important aspects of the policy of the reserve banks in handling the situation. The discount rate of the reserve banks is clearly an effective means of checking credit expansion, but it is also evident that advancing rates influence the situation rather slowly. Credit continued to expand for some months after rates were finally advanced in May to the present high level. When credit is expanding rapidly, there is at any moment a considerable supply of unused credit scattered among the thousands of banks of the country the use of which is not subject to control by the reserve banks. The continued increase in the amount of federal reserve notes for some months after credit expansion was checked is in accord with what was to have been anticipated. Increased requirements for currency accompany, but with some lag, the increase in credit in the form of deposits subject to check.

These conditions and tendencies prompt the suggestion that when rates are advanced in order to check credit expansion the practice of the Bank of England of advancing rates by increments of one per cent should be adopted. In making for the first time a test of the effects of advancing discount rates, it was perhaps natural and proper to move slowly. Experience during the last year indicates that advances of fractions of per cent are ineffective. It may be added that in this particular instance, it would have been of much advantage if somewhat greater progress in the process of readjustment had been made before the beginning of the crop moving season, a result which would have followed a less hesitant discount policy.

The process of gradual contraction and orderly industrial readjustment seems at first sight in every respect superior to the short and severe crisis and panic followed by depression with which we have had frequent experience in the past. I do not doubt that the balance of advantage is heavily in favor of the slower process. At the same time it should be recognized that the slower process is attended by its own peculiar difficulties. While the aggregate loss is doubtless reduced, the burden of loss is apparently distributed in a somewhat different but by no means certainly in a more equitable fashion among the various groups of producers. The slow process of liquidation does not succeed in bringing about a slow and uniform general decline in prices. In

fact, price changes seem to be more irregular, or at least the irregularities are more prolonged than when periods of trade activity culminated in catastrophic disturbances. In this connection the query suggests itself whether farmers might not have incurred less loss if there had been a crisis in the early autumn that might have forced a more immediate reduction in prices of the goods they must buy.

The irregular distribution of the burdens of liquidation in some measure explains even though it does not give sufficient ground for complying with the widespread demands for assistance now being made by various classes of producers. Much of the occasion for special consideration will disappear when in the near future, as now seems probable, the decline in prices has completed the circle.

There is grave danger that the quack remedy of inflation through enforced accommodation from the reserve banks may be attempted. Such a remedy would be similar in all essentials to the grant of aid by the issue of paper money by the government, a form of assistance that was urged but successfully resisted after the Civil War. It is not too much to say that it is now to be determined whether the people of the United States possess sufficient intelligence and endurance to permit the successful operation of anything better than a straight-jacket credit system. We have established a system which is designed to prevent collapse and complete disorganization. This presupposes that reserve banks will regularly hold in reserve large potential credit power. If we insist upon using such power as a means of temporary relief and stimulation, ultimate disaster is the certain consequence. Past experience shows that it is dangerous for governments to issue paper money. There is a constant temptation to overissue when confronted by real or imaginary emergencies. The same danger arises in the case of the reserve system—that public opinion and perhaps legislative action will compel the employment of its resources in a vain endeavor to cure evils which are mainly due to credit already granted in excess.

The process of industrial readjustment at best is painful and its burdens are most unevenly distributed. It seems pertinent therefore to enquire whether something more cannot be accomplished through the reserve system than the mere modification and amelioration of conditions at the culmination of periods of business activity. Would it be possible so to operate the reserve system that conditions which compel widespread liquidation would not be developed, or at least would not be developed to so serious degree as in the past. This inquiry is rendered more significant by the serious danger that conditions which render subsequent liquidation unavoidable will develop more luxuriantly under the reserve system than was possible under the national banking system. Let us examine this point.

The liquidation now under way will doubtless lead to a considerable reduction in the loans of the banks to the public and in rediscounts at the reserve banks. It is not unlikely that a reserve ratio as high as 70 per cent will be seen before the beginning of the next period of active business and intense demand for credit. Moderate if not low discount rates will doubtless prevail at the beginning of the period. A large supply of credit will be available; much more, as we have seen, than could be furnished if the reserve banks like the Bank of England could not issue credit notes. I mention this familiar fact once more because the pre-war discount policy of the Bank of England, with its changes in rates as the reserve increased or decreased, seems to give the sanction of successful experience to a policy for central banks that would allow credit to be extended freely at low rates whenever reserves are ample. Bank of England practice, however, loses significance and is positively misleading when it is applied to a banking system which loses no gold for purposes of domestic circulation as deposit credit expands. Again in pre-war times, comparatively slight influences, whether at home or abroad, were sufficient to subject the reserve of the Bank of England to depletion from gold exports. For these two reasons credit expansion in England could seldom be carried far without bringing the reserve of the bank down to a point at which an advance in the discount rate would become necessary. In this country, whatever may be the situation in the distant future, gold exports for many years to come are not likely to be the almost automatic consequence of moderate credit expansion. This restraint on excessive credit expansion in any single country was effective when all important commercial countries were on the gold standard. It is not now effective because most of the world is on an inconvertible basis. Consequently the volume of credit which may be created in the United States will be determined for many years to come almost wholly by domestic influences. In these circumstances, while the reserve system may be expected to prevent the outbreak of panic, its expansive power is so great that with the reserve ratio the determinant of discount policy it can be confidently predicted that far wider price fluctuations will mark the successive stages of the business cycle than were experienced under the national banking system.

It should also be noted that the discount rate of the reserve banks is a somewhat less immediately effective instrument of credit control than that of the Bank of England in pre-war days. A considerable portion of the loans of the British banks were of an international character which could readily be shifted to the money markets of other countries when London rates became relatively high. Owing to the present disordered financial situation of most countries, loans arising out of foreign trade and other international transactions no longer possess this

quality so valuable from a banking standpoint. International loans have become no more transferable than domestic loans and, it may be added, with respect to payment at maturity without delay or renewals have become decidedly inferior to domestic loans.

The absence of branch banking in the United States also weakens the validity of comparisons between the discount rate of the Bank of England and those of the reserve banks. Credit is less fluid under our system of some thirty thousand banks. There are much wider variations in the lending rates of the various commercial banks; there is no such general market rate of discount as in England. Consequently, the Bank of England practice of a discount rate slightly above the market rate cannot have so pervasive an influence. Moreover, until the banks cease to be constant heavy borrowers at the reserve banks, a condition largely due as we have seen to the war, it will not be feasible as a regular policy to establish discount rates above the lending rates of member banks even of those in the large cities. When, however, it is the definite purpose of the management of the reserve banks to check credit expansion, it will probably be found necessary to establish discount rates which are considerably above the minimum rates at which some member banks are making some of their loans.

As a guide to discount policy, it must be admitted the reserve ratio has certain conspicuous advantages. It is definite and obvious. Public opinion may be expected to support the always unwelcome policy of credit restraint when that policy is enforced by a depleted reserve. It is unhappily very doubtful whether the public would have been reconciled to the advance in rates made last spring if the reserve banks had had, let us say, a reserve ratio of 55 per cent, and yet, all other things being the same, an advance in rates would have been no less desirable.

By parity of reasoning, it follows that reductions in discount rates need not wait upon the acquisition of a high reserve ratio. The present situation furnishes a convenient illustration. Credit expansion has already been definitely checked; there is no present danger that lower discount rates would stimulate a widespread demand for credit that would permit prices to move rapidly upward once more. The demand for credit is now largely for the purpose of holding goods for which purchasers cannot be found. It is no longer a sellers' market. In these circumstances, it is at least possible that a slight reduction in discount rates, by encouraging many to resume normal business dealings, might facilitate the process of liquidation, and so make possible a more speedy reduction in the total volume of loans than will be secured through the maintenance of the present schedule of rates.

There is no substitute for the reserve ratio which possesses its pe-

culiar virtues of simplicity and definiteness. To an enlightened business public, however, it should be evident that so delicate and at the same time potent an instrument as credit cannot be wisely administered in a mechanical fashion in accord with simple definite rules.

Whether at any time it is desirable to impose restraint upon credit depends upon the uses to which credits are being put and upon the effects of these uses. The most definite indication that we possess of excessive credit is found in the decided upward movements of prices extending over a number of years. There is practically universal agreement that prices cannot be held at an absolutely fixed level. Most would agree that advancing prices at the beginning of a period of activity stimulate production in some measure. Few, however, would question that at some stage in every period of business activity rising prices facilitate ill-judged undertakings and fail to increase industrial output. No doubt there would be wide differences of opinion as to just when this stage is reached in any particular business cycle. Even so, it is submitted that the expert judgment of a responsible body like the Federal Reserve Board, enjoying the benefit of general public criticism, provides a far more satisfactory basis for a discount policy than the variations of a reserve ratio.

The proposal to base the discount rate largely on the observed effects of credit expansion is not designed to secure the stabilization of prices. Such a policy would not be concerned with permanent changes in prices associated with variations in the world's supply of gold. It would aim merely at lessening price fluctuations within particular business cycles, checking somewhat the upward movement, and thereby lessening the subsequent decline.

Nearly every economic and social question is complicated, and many are rendered insoluble by the alternations between activity and depression of the business cycle. To mention but a single instance, consider the extent to which efforts to enlist an interest in efficient production on the part of wage earners have been frustrated for many years to come by the present widespread unemployment, an inevitable sequel of the orgy or inflation of the last five years.

This proposal to administer the reserve system in such a way as to moderate the fluctuations of the business cycle, will of course be met with the objection that it is politically hazardous. It will be urged that any attempt to influence prices will be resented by large and influential classes who would believe, whether rightly or wrongly, that they were being subjected to needless loss or deprived of well earned gains. This difficulty, while unquestionably very serious, is less than would appear at first sight. We should not gauge the antagonism to restraint on credit exercised at an early stage in a period of expansion

by the outcry which is heard when enforced contraction occurs after years of excessive credit, rising prices, and feverish trade activity. Restraint in the use of credit if imposed at an earlier stage in the cycle will not be accompanied by widespread liquidation, followed by years of depression. Here as elsewhere it is the wiser course to endeavor to remove causes, working with the confident expectation that that discount policy for the reserve banks which will yield the greatest permanent advantage will finally secure general public approval.

In the event that no control of credit based on the observed effects of credit expansion at different stages in the business cycle is attempted by the Federal Reserve Board or, if attempted, is given up because of lack of public support, another, but in my judgment less satisfactory, method of lessening the danger of excessive credit should be adopted. At some favorable moment, when the public is in a conservative mood, the legal reserve requirements against federal reserve notes, or against both notes and deposits should be raised. A reserve ratio of 50 per cent or even 60 per cent would permit much more additional credit expansion than was possible under the national banking system, and quite as much as could be advantageously employed. The economic development of the country might have been somewhat more rapid at times in the past had more capital been available, but credit is not capital; it is simply an agency for transferring capital. I venture to assert that at no time in the past has the economic development of the country been retarded because of an insufficient supply of credit, while very frequently development has been retarded as a consequence of credit furnished in excess.

The experience of six years has disclosed no serious defects in the structure or management of the federal reserve system, while the expansive credit power of the system, enormously greater than that under the national banking system, presents no serious danger for the future if suitable policies are adopted. Much more is clearly necessary than the adjustment of discount rates to variations in the reserve position of the reserve banks. A discount policy should be adopted which is designed to check the rapid expansion of credit in periods of trade activity. Such a policy is entirely practicable but it cannot be adopted in the absence of general confidence in the wisdom of the policies of the management of the reserve banks, and it requires readiness on the part of the public to support these policies even when the immediate consequences are painful. Satisfactory results from the working of the reserve system seem assured if the management is given the support of an intelligent public opinion.

O. M. W. SPRAGUE.

Harvard University.

DISCUSSION¹

R. C. LEFFINGWELL.—No university man, certainly not one who studied economics in the university, can approach this audience without—I would not say trepidation, but—respect. I accepted your invitation not only with respect, but with real enthusiasm, because I look upon the economists of today as the priests of a religion of material salvation which must be successfully preached throughout this land if we are to survive the disastrous consequences of the great war.

I shall not allow myself to be diverted, either by my own impetuous disposition or by Professor Sprague's cordial invitation, into a discussion of the Treasury's policies. I had the honor of reading a paper on "Treasury Methods of Financing the War in Reference to Inflation" before the Academy of Political Science last spring in New York, and any one who is interested in my answer to Professor Sprague is respectfully referred to its proceedings.² The problem of today is the problem of banking and currency, and the assigned topic of this meeting is Federal Reserve Board policy. I propose to talk as briefly as I can about that absorbingly interesting subject. But in passing let me say this: the Treasury struggled, first to finance the war so that it should be won, and second to finance it without avoidable inflation. There was never a moment when the latter thought was not in the minds of Treasury officials; there was never a moment when the American people did not know that their duty was to save and to buy Liberty bonds and pay taxes with their savings. The methods chosen by the Treasury, the Federal Reserve Board, and other instrumentalities of the government to combat inflation were chosen thoughtfully and were on the whole very successful. No equal financial burden was ever assumed in a like period of time by this or any other government in this or any other war, yet war inflation here was less than in other countries including non-belligerents.

But inflation did come. It came to us before we entered the war. It came to Japan, it came to European neutrals. Inflation came because the world was wasting more than it was producing. We may be very ingenious in our methods and very wise in our policies, but they could not solve the problem presented by the fact that the world was using up more than it was producing. It is exceedingly important that we should have the discussion of federal reserve policies we are having today. But it is more important that we should realize what federal reserve or treasury policies will not do. They will not take away the curse of war. We fought a great war. We are proud of it and glad of it. But from the economic point of view, it was a reckless debauch, and the people ought to be told that the next time they enter upon an economic debauch they must pay the price, and the price will be registered in inflation. We must not delude ourselves, or those who rely upon us, with the belief that the consequences of economic waste can be avoided by any amount of wisdom and ingenuity in finance or banking.

Having thus got the question of method back in perspective, let us consider the Federal Reserve Board's policies. The problem of credit control

¹ The remarks of Dr. A. C. Miller, who took part in the discussion will appear in more amplified form in an article to be published in the June number.

² *Proceedings of the Academy of Political Science* (New York), vol. IX, no. 1.

since the creation of the federal reserve system, shortly after the war broke out in Europe, has passed through four phases: (1) before we entered the war, (2) during our active participation in the war, (3) the first year after armistice, and (4) the present readjustment period.

Before we entered the war, expansion in this country was based upon the importation of gold and investment securities. The federal reserve system was as powerless as a babe unborn to prevent it. The federal reserve banks were hard put to it to earn their operating expenses. Member banks did not have to borrow and therefore bank rates could not be effective.

The outbreak of the war in Europe, prior to the organization of the federal reserve banks, found this country well nigh helpless to meet the financial and banking problems thrust upon it. New York City had trouble to meet its foreign obligations in gold. The New York Stock Exchange was closed for a protracted period and later hesitatingly resumed operations under careful restrictions. These things happened because our financial system was in its infancy, and notwithstanding the fact that America was not a party to the war. It was not long before the federal reserve system was put in operation, and when, nearly three years after the outbreak of the war in Europe, America herself entered the war and assumed financial burdens of unparalleled magnitude, the federal reserve system made it possible for us to meet them without financial disturbance and without embarrassment of the Nation's capacity to produce and transport war materials and supplies. The Federal Reserve authorities have no need to shelter behind the Treasury's broad shoulders and they are entitled to high praise and the lasting gratitude of the American people for the important part they took in financing the great war. They advised the Treasury in the dark days of the war. Treasury officials and Federal Reserve authorities did not always agree among themselves or with each other, but, in the proud record of the Treasury, as well as of the federal reserve system, members of the Federal Reserve Board and governors and chairmen of the federal reserve banks are entitled to claim a share.

After we entered the war the addition of this government's buying power to the buying power of the governments of Europe created a wholly abnormal situation. The enthusiasm of our War Department and Navy Department was unlimited. Their orders and contracts called for goods and services far in excess of the country's capacity. During the whole period of the war any attempt of the Federal Reserve Board to control credit through rates would have been futile. The Treasury would have had to meet any rate they made at home, and the federal reserve bank rate could have no effect upon the international situation, because the international movement of goods, gold, and capital was controlled by foreign governments or our own for the purposes of the war. The adoption of a "dear money" policy during the war, with a view to preventing inflation, would have failed of that purpose unless it had been carried to such an extreme as to bring about such conditions in war time as exist today, in which case we should have lost the war and would have had to inflate afterwards in order to pay the indemnity which Germany would have imposed upon us! No, you cannot use rates in such a period as that from April, 1917, to November, 1918, effectively to control credit. You have to adopt methods such as were adopted, and with a very extraordinary degree of success. The response which the American people made to the efforts of the Treasury and Federal

Reserve Board, of the Liberty Loan and War Savings organizations, of the Capital Issues Committee, of the Food and Fuel Administrations, and of the War Industries Board, for the most part without compulsion of law, to conserve capital, credit, goods, and services, was amazing proof of the passion with which the people entered the war. They worked and they saved and they did without things, and they are entitled to be proud of it.

After the war was over in the fighting sense, it went right on in the Treasury sense. We reached the peak of expenditures in the three months, November and December, 1918, and January, 1919. We spent two billion dollars a month. That was as much as the First Liberty Loan each month. Since armistice day this Government has paid out as much as before armistice day, twenty billions before and twenty billions after. The gross debt of the Government on armistice day was eighteen billions. Nine months later it was twenty-six and a half billions. While the Government debt was mounting thus, the same condition continued which had existed during the period of active warfare. It was no more practicable to exercise control of credit by the use of dear money than it had been before. Indeed, it was less practicable, because the enthusiasm, devotion and self-sacrifice of the American people while war was on vanished over night with the signing of armistice. The bills did not get paid any easier, but a good deal harder, because the Germans had capitulated.

The magnitude of the Government's expenditures after armistice day was such that plans had to be made for funding the greater part of them. The Victory Liberty Loan was floated in April and May, 1919, successfully, and a large part of the after-armistice indebtedness was lodged with investors. It could not have been floated in any such amount upon any terms in a period of dear money. If it had not been for the Victory Loan, the floating debt would have amounted to more than \$8,000,000,000 on August 31, 1919. You cannot have credit control with an unmanageable floating government debt. If the Federal Reserve Board had prematurely adopted a dear money policy, they would have rushed into the difficult position in which unfortunately the Bank of England found itself because the British floating debt had gotten out of hand.³

The situation I have described did not really end on August 31, 1919—not indeed until January, 1920. Notwithstanding the success of the Victory Loan, it was not paid for in full until the latter part of November, 1919, nor had the Fourth Liberty Loan, issued in the fall of the previous year, yet been paid for in full; and the Federal Reserve Board remained in a difficult position with respect to the problem of credit control on this account and on account also of the fact that nearly two billion dollars of

³ *Economist*, London, Jan. 24, 1920, p. 113: "Plenty of money and a consequent demand for bills have been the chief features of the internal history of the money market. The plenty may be attributed to the fresh creation of ways and means advances, necessitated by the maturing of more Treasury bills than were applied for. By this process, as we have frequently pointed out, dealers in and users of credit can now at any time oblige the government to create more 'cash at the bank' by the weapon that they hold in the shape of 1,000 millions odd Treasury bills outstanding. Thus the powers that be can make money dear by paying more for it, but they can not make it really scarce until, by taxation or otherwise, they have reduced the effectiveness of this weapon."

treasury certificates of indebtedness matured within six weeks, or thereabouts, in December, 1919, and January, 1920. The last six months of 1919 were therefore trying months, and the Federal Reserve authorities, rightly I think, moved cautiously in the use of the discount rate, testing that instrument under novel conditions. Early in November, 1919, they began a series of fractional increases in rates, but notwithstanding that caution, a quasi-panic in the securities market, particularly in government bonds, developed in the latter part of November, 1919.

There were a number of other obstacles in the way of more rapid progress in establishing credit control during that period:

The Treasury was in honor bound to use the bond purchase fund established by Congress for that purpose to support the market for Liberty Bonds. Thus whatever pressure upon the money market resulted from the efforts of the Federal Reserve authorities to control credit was automatically relieved by the Treasury. It is noteworthy that efforts to control credit never gave any sign of becoming effective until in April, 1920, the Treasury's moral obligation having been satisfied, it discontinued purchases for the bond purchase fund.

The Federal Reserve authorities had, wisely I think, undertaken the task of creating a market for acceptances, but in the effort to do so had felt it necessary to take acceptances at an artificially low rate.

An arrangement had been entered into during the war by which an increase in the clearing banks' rate on interbank deposits would result from any increase in the reserve banks' ninety-day rate on commercial paper. It was generally agreed that such an increase in the rate upon interbank deposits would be harmful to the whole situation, but the Federal Reserve authorities did not find it possible to eliminate this arrangement until January, 1920.

The effort to eliminate the differentials in favor of loans on government securities, which had much to commend it from a theoretical point of view, placed the federal reserve system in a dilemma between subsidizing inflation by maintaining a rate much below the market on commercial paper, or, on the other hand, creating a disaster in the market for government securities. It was finally solved in January, 1920, subordinating theory to the practical requirements of the situation, by elevating the commercial rate considerably more than the rate on war paper.⁴

Though something may be said for the view that in the latter part of 1919 there might have been a somewhat earlier and greater advance in rates

⁴The Federal Reserve Banks' holdings of paper secured by Government war obligations reached their peak on May 16, 1919 (just before the date, May 20, 1919, when the first payment on the Victory Loan reached the Federal Reserve Banks), when the amount of such paper was \$1,863,000,000. On the same date, May 16, 1919, the Federal Reserve Banks' holdings of commercial paper, including bills bought in the open market, were at about low-water mark, \$359,000,000. Since May 16, 1919, there has been a pretty continuous contraction in their holdings of paper secured by Government war obligations and expansion in their holdings of commercial paper. On December 26, 1919, war paper had been reduced to \$1,510,000,000, but commercial paper, including acceptances, had increased to \$1,270,000,000. On December 3, 1920, war paper had been reduced to \$1,161,000,000, but commercial paper had increased to \$1,859,000,000.

on commercial paper and in the open market buying rates for acceptances, my own judgment is that this is a question of detail, rather than of substance, and that the effort to make money really dear before January, 1920, when the Government was first able to reduce its floating debt to manageable amounts and maturities, would have risked more than it could have hoped to gain.

During the whole of 1919 the continuance of war expenditures and policies by the other departments of our Government, such as the War and Navy Departments, the Shipping Board and the Food and Railroad Administrations, and the expenditures of foreign governments out of loans made by the Treasury in pursuance of credits or commitments previously made, continued the abnormal demand for goods and services and the inflation of prices and wages, and of the public debt. Professor Sprague spoke of one instance: The regrettable fact is that the Government of the United States continued to furnish railroad transportation at less than cost until September 1, 1920, nine months after the Federal Reserve Board adopted its dear money policy, and continues today to lend money to the railroads at less than cost and much less than the market rate.

On the other hand, the removal by the Treasury and the Federal Reserve Board of the gold embargo immediately after the Victory Loan was the most important and effective step towards deflation taken in 1919.

During the latter half of 1919, the Federal Reserve Board attempted to deal with the problem of inflation by what Dr. Miller has called "direct action." It was apparent that, because of the gold embargoes maintained by practically every country except the United States, and because of other extraordinary conditions, an increase in the reserve banks' rates could not operate upon the international situation, in accordance with the pre-war classical example of the Bank of England, for instance, either to cause the importation or curtail the exportation of gold, or to curtail the importation or increase the exportation of commodities. An increase in rates could operate solely upon the domestic situation, and with painful results. Under these circumstances the Federal Reserve Board was, I think, bound to make the effort to deal with the problem by direct action. As a matter of fact, it was not until the spring of 1920, when both direct action and dear money were in full effect, that the reserve system was able to get any control of credit.⁵

A difficulty, peculiar to this country, in the way of the successful exercise of credit control by the Federal Reserve Board, whether by direct action or by dear money, lies in the fact that there are some thirty thousand

⁵ *The Economist*, which has been a consistent critic of the Bank of England's dear money policy, puts the argument for direct action briefly in its issue of January 3, 1920, page 3, as follows: "In old days when the gold standard was effective, raising money rates at a time of undue credit expansion used to increase the basis of credit by bringing us gold. In these times no such effect can be counted on, and the higher price that has to be paid for money by speculators in securities and commodities has little effect upon them in view of the great fluctuations in prices and the large profits that these fluctuations bring them. If credit is to be reserved for producers and distributors of necessities and restricted for those who are holding up commodities, this end would seem to be best accomplished by joint action on the part of the banks."

banks and trust companies in the country of which only some ten thousand are members of the federal reserve system, and that non-member banks and non-borrowing member banks possessed an enormous capacity for expansion independent of the federal reserve system.

When in January, 1920, the Government's floating debt had at last been reduced to manageable amounts and maturities, but the hoped for liquidation did not materialize, the Federal Reserve Board proceeded with vigor to control credit through rates. There was no reluctance about the Treasury's acquiescence in this change in the discount policy of the Federal Reserve Board. On the contrary, the Treasury strongly advised the 6 per cent rate which was adopted in January, and the 7 per cent rate which was adopted in May, 1920.

In thus advancing rates the Federal Reserve Board proceeded wisely and courageously in the effort to *control* expansion. With equal wisdom and courage it has not attempted to *prevent* it; and by permitting rates to remain below the open market rates and credit to be expanded during the period of deflation of prices, it has prevented the present business depression from degenerating into an old-fashioned panic.

The experiment made in 1920 of establishing penal rates for excessive borrowings was well worth trying. It may be questioned, however, whether experience has justified it. Certainly the adoption of the system of penal rates in a given federal reserve district does not justify the maintenance of a basic rate in that district lower than the rate maintained by reserve banks of neighboring districts or of the financial centers of the country.

Turning now to the future of federal reserve policy:

I share Dr. Miller's objection to Professor Sprague's suggestion that federal reserve rates should be determined by price movements. There is no man, or group of men, to whom the American people will, or should, accord the right to determine whether they shall be prosperous or miserable, whether they shall have high prices or low prices, whether they shall have good times or bad times. The day Professor Sprague's suggestion is adopted by the Federal Reserve Board marks the end of the federal reserve system. It would be absurd for the Federal Reserve Board to ignore price movements as symptoms of the general situation, but it cannot base its discount policy upon them.

On the other hand, the reserve alone is not an adequate guide. The obvious first principle is that the discount rate should be above the market rate, whether in consequence of the elevation of the Reserve Banks' rates or the depression of market rates. When it is possible to bring about this condition it will be the first duty of the Federal Reserve authorities to see to it that the command thus obtained of credit is maintained. When the reserve banks' rates are above the open market rates they will exert an automatic pressure on the banks, which cannot be expected to meet their customers' demands habitually at a loss. It is true that under normal conditions a central bank's rate, even when it is above the market rate, is not always effective. As I have pointed out, the reserve banks' rates were ineffective before we entered the war. But that situation need not concern us now nor for a long time to come, I imagine. It cannot happen until the production and saving of real wealth have made good the war's waste, and the independent resources of the banks suffice for the normal requirements of their customers. Then the member banks' dependence upon the

federal reserve system will be as it should be, seasonal or occasional, and not habitual. Until then the market rates will tend to maintain themselves above reserve bank rates automatically, unless, of course, panic rates should be established, and we may be confident that they will not be.

If the reserve gets big enough to be embarrassing, the best cure for the situation which will then arise is to pay out gold and gold certificates, and restore them to circulation. Currency and credit have been expanded by the federal reserve system both because of the economy in the use of the reserve permitted by the federal reserve act and because of the withdrawal of gold and gold certificates from circulation in this country and the substitution of federal reserve notes requiring only a 40 per cent reserve. We shall not have restored our pre-war financial strength until we have returned to circulation the gold and gold certificates withdrawn during the war and since, and thus re-created the greatly depleted "secondary reserve." To the extent that gold and gold certificates are thus restored to circulation and federal reserve notes withdrawn, the practical importance of the objection raised by Professor Sprague and Dr. Miller to the federal reserve note as a credit note, as compared with the Bank of England note as a gold note, will be reduced.

In conclusion: Vastly important as are these questions, more important by far is the fact that today the governments of the world are busily engaged in dissipating the resources of the people of the world; and the Government of the United States of America is not guiltless. Just so long as we enroll armies and build navies in preparation for future wars, as men rush to Washington for relief and for special privileges, just so long will the fabric of the economic state be in peril. There is nothing that economists can do, nothing that the American people can do to save themselves, except demand that the waste of public funds shall stop—that there shall be no more militarism, no more subsidies or doles.

The Federal Reserve authorities have stood, during the three or four years of my acquaintance with them, for sound things in finance, for sound things in banking and currency. They are entitled to the support of all good citizens, because they stand today with their shoulders squared against the winds of popular stupidity, of political ingenuity, and of selfish interest. Give them your support.

THE THEORY OF PRODUCTION¹

Writing of the state of theories of production and distribution that were current from 1776 to 1848, Professor Cannan found it "not very easy to understand the admiration which was once felt for the progress made during that period."² In another part of the same work he calls attention to the "unsatisfactory character of theories of production and distribution regarded from a purely scientific point of view."³ Whether the theory of production or of distribution weighed more heavily in his scale of estimate, it is difficult to say. Whether, also, his disappointment with the progress of economic science in these fields was due to inherent doctrinal fallacy in the system of political economy he is reviewing or to the restricted scope of subject-matter which economic science set up for itself, it is likewise difficult to say. But it is clear that these two elements in scientific systems are not one and the same thing. For science may fail to meet current needs either because its laws or principles cannot stand the test of the accepted canons of formal logic or because these principles are based upon a restricted range of phenomena. A theory of production may, in other words, be true as far as it goes, but it may at the same time be practically useless because it does not go far enough. Scientific progress is effected, accordingly, not only by the refinement of old tools and the rearrangement of old material, but, to a much greater degree, by the fashioning of new tools and the addition of new material that requires explanation and formulation—in short, by widening the range of scientific inquiry. The recognition of this fact makes necessary from time to time the re-statement of the problems of a science in such a form as to permit a survey of the materials of science that have hitherto been neglected. In the light of these considerations, this paper addresses itself to an examination of the current theories of production.

I

That the price concept dominates contemporary economic theory is a truism. It is not altogether clear, however, what form this domination takes and what consequences in theory it entails. For the purposes of this discussion it is sufficient to say that thinking in terms of money units has created serious difficulties in the measurement of national income and wealth and in the interpretation of the facts of productive processes, and that the price paid for these difficulties is not

¹ This paper was read at the Thirty-third Annual Meeting of the American Economic Association held in Atlantic City, December 28, 1920.

² Cannan, *Theories of Production and Distribution*, second edition, p. 379.

³ *Ibid.*, ch. IX.

warranted by the returns in economic theory. Whether properly a part of economic theory or not, discussions of the magnitude and distribution of national wealth and income have for a long time held a prominent place in economic writing. Both lay and professional students of economic life want to know not only how industrial organization works but also what its practical effects are. Measures of wealth and income are ways of estimating the efficiency of the industrial organization of communities. They are barometers of material progress and of shifts in social control. And they are almost without exception constructed on the basis of money units. When expressed in absolute terms they are money aggregates and when expressed in relative terms they represent simply the relationships of the same aggregates to one another. Yet, widespread as this process of money measurement is, and useful as the results of inquiry into money measures may be, the fact remains that the initial results of industrial activity are physical goods and services—wheat, coal, locomotives, power generators, and light. And it is on the abundance or scarcity of such things that the material well-being of peoples depends. Now, it is conceivable that the relation between the physical output of a country and its money value is of so simple and constant a nature that conversion from one to the other is a matter of elementary arithmetic. This is in fact sometimes the case. But, for the most part, market phenomena in modern society are so complex that conversion is beset with technical difficulties almost insurmountable.

This difficulty appears in its simplest form where money wealth and income vary because of changes in the purchasing power of the prevailing unit of value. Thus, in the study of variations in wages, a form of income which is usually expended with great celerity, devices are employed to neutralize the influence of price fluctuations. Much time and energy have been expended in the construction of correction factors that are designed to bridge the span between money and goods. Index numbers of wholesale prices, retail prices, and of the cost of living—each, with all of its variants, has at one time or another served this purpose. Controversy over the validity of alternative devices of this nature still finds a place in the technical journals. But in this case the problem is comparatively simple. The incomes of individual laborers are relatively small; they are spent almost immediately after they are received; they are used to purchase commodities whose prices can, in a general way, be easily determined. What, however, is the instrument that should be used to correct changes in the money value of corporation surpluses? Should an income of one million dollars in a period of rising prices be converted from money to real income on the same

principle as that by which conversion is made of incomes under three thousand dollars a year?

From 1904 to 1912, the national wealth of the United States increased 75 per cent. Population in the same period increased 15 per cent and wholesale prices 17 per cent. Even if allowance be made for the rise in prices during this period, the wealth of the country shows a substantial increase. The question is, how far this increase in total wealth reflects itself in the material status of members of the community. According to Watkins, "some of this sort of increase in national wealth is doubtless due to more adequate occupation of national advantages, but more of it is of the nature of the increment in the value of the ground upon which New York City is built."⁴ That is, the money wealth of the country increased from 1904 to 1912, not through the creation of more goods and services, but through appreciation in land values. Nor is it easy to estimate with only a small margin of error the portion of the increment of wealth that originates from this source.

Another and more serious class of problems arises from the effects of the progressive utilization of the natural resources of a country and from changes in public policy that have a profound, if unknown, influence on the magnitude of national wealth. Enough is known of the system of valuation of public utilities in this country to permit the generalization that their advertised money value may bear little direct relation to their physical character. A private water company on the point of sale to a municipality will have one value; for the purposes of rate valuation it will have a second; as taxable property it may have a third; and the same physical property finally owned by the state may have still a fourth. By only the smallest stretch of the imagination, all of these stages of valuation may be conceived as transpiring within a period of two or three years. Yet the water company, the source of potable water to the community it serves, has probably experienced no significant change in its physical character at all. Programs of railroad valuation present the same kind of picture. Whether one or another of the several current theories of railroad valuation earns general acceptance, the railroads of the United States will at any one time meet the needs of the country, not by showing a higher or lower valuation, but by being able to furnish adequate and satisfactory transportation service. It is the second factor that counts.

Public utilities also exhibit the influence of a class of phenomena that probably widen the gap between money valuation and physical capacity and performance. The history of the public utility has been a story of

⁴ G. P. Watkins, "Estimated Valuation of National Wealth," *AMERICAN ECONOMIC REVIEW*, September, 1915, p. 689.

the progressive encroachment of the authority of the state on private control and ownership. If our customary conceptions of the profit motive are sound, this development must produce a profound effect on the money value of public utilities. But, whatever has happened to money value—and the material for answering this question is not available—the increment of public welfare is obviously a quantity of a different nature and a different order of magnitude from anything that can be reasonably measured in money terms. This is particularly the case when what was once private enterprise has passed completely into the control and ownership of an organized community. We have yet to develop a continuous system of money accounting that can accurately represent the value to communities or to individuals of property that has so changed hands. Conversely, the problem appears in no simpler form when the economic history of a country is such that, described in terms of well known economic categories, goods are constantly changing in status from free to economic goods. By all methods of measurement with which we are familiar, the national wealth would under such conditions increase. Only in the case of goods whose supply may ultimately be entirely exhausted, is it possible to register in money accounting the loss to a community from scarcity. But even in such a situation, the time when money wealth falls and the extent to which it falls are largely matters of speculation. This whole question is one of considerable complexity but its practical implications can be indicated in a question of this nature: "What effect, if any, will the impending exhaustion of our natural resource of crude oil exert on the next estimate of the national wealth of the United States?"

In all of this discussion the important point is that errors of one kind or another are likely to appear in estimates of national wealth and income. The errors are generally of such a character that neither their number nor their degree is calculable. The whole process is one in which a quantitative goal is being constantly shifted to allow for the influence of a range of variable qualitative factors. Those factors, furthermore, are usually not accidental in origin but are directly or indirectly based on some principle of economic or accounting theory. An estimate of the national wealth of a country is, for instance, a money aggregate composed of a large number of constituent money estimates. The determination of each of these constituents makes necessary one or more decisions with regard to content and magnitude and the resolution of all of the difficulties that such decisions involve. Hence the larger the number of decisions required, the more complex the raw material, the greater will be the range of error. Nor is it practically possible to make any but the roughest and most useless allowances for errors of this nature. For most estimates of this kind

rest upon a great deal of implicit economic and accounting theory and an insignificant amount of explicit theory. One reviewer of a census estimate of national wealth left "his task with a strengthened feeling that economic statistics must be as much economics, even theoretical economics, as statistics." "It would do no harm," he said, "for the Census Bureau to make its theories explicit."⁵ A commentator on King's study of wealth and income, while expressing great admiration for the study, lamented the absence of the detailed data from which the validity of the totals might be tested.⁶ Given, therefore, an unknown factor of this nature as a pervasive component of all estimates of national wealth, and the difficulty of making sound judgments, for the purpose of accepting or rejecting the conclusions of the study, should be evident.

II

Money estimates of national wealth, then, involve logical leaps and methodological assumptions that dictate their use with the utmost of caution and circumspection. But the measurement of wealth in terms of money is only one manifestation of a universal practice which underlies organized economic thinking. And it is to the more subtle and indirect influences of a pecuniary economic theory that our attention should turn. Men and women, in contemporary economic life, may be described as leading double lives. They live, on the one hand, in the market place, bargaining for wages, bread, stocks and bonds, locomotives, and what not; and, on the other hand, they live in factories, stores, offices, and farms, where they are machine tenders, hand operatives, managers, promoters, and clerks. If some of the energy of modern men is expended in the function of bargaining, or valuation, certainly a far greater amount is consumed in the processes of invention, management, and manual labor. Yet, so profoundly has the study of market phenomena and price determination directed scientific economic thinking, that technological and psychological phenomena, fundamental in more ways than one to a proper understanding of the machinery of production, have been almost wholly neglected. The meas-

⁵ G. P. Watkins, *op. cit.*, p. 689.

⁶ "It is to be regretted that Mr. King has not taken his readers more into his confidence in respect to these and other details of the methods he has used. He indicates his source but does not explain all of his estimates. It is impossible to verify his results except by doing his work over again from the beginning." Allyn A. Young, *Quarterly Journal of Economics*, May, 1916, p. 582. It is interesting that in the same review, Professor Young characterizes the book as "Free from irrelevant and insignificant detail, it represents a courageous and painstaking attempt to get at the larger facts in the situation." What are the "larger facts" as separate and distinct from "Irrelevant and insignificant detail"?

urement of progress in terms of money and the development of an economic theory in almost the same terms have had the effect of directing emphasis and of throwing light on one class of economic phenomena and of leaving another in partial obscurity. Wherever, in the prevailing theories of production, the attempt has been made to consider technological and psychological factors, the results have been formulae of the utmost simplicity and generality which may be summed up in the familiar expressions "division of labor" and "diminishing returns."

Nor is this emphasis on the market place limited to the thought of professional economists. It permeates popular thinking as well. Whether the likeness between professional and lay opinion is a phenomenon of cause and effect, it is difficult to say. But that it exists there is no doubt. Mitchell's description of the situation designates not only the bare facts in the operations of a pecuniary economy but also the nature of human reactions to the facts. "The economic comfort or misery of a modern family depends not upon its efficiency in making useful goods and its skill in husbanding supplies, but upon its ability to command an adequate money income and upon its pecuniary thrift. Even in years when crops are short and mills are idle, the family with money need not go cold or hungry. But the family without money leads a wretched life even in years of abundance. To the single family, then, prosperity and depressions appear not as problems of the adequacy of the goods produced, but as problems of the adequacy of money income." The accuracy of this statement needs no confirmation. Whether popular attitude preceded scientific formulation or vice versa may be a debatable question. But that in both spheres of thought the pecuniary attitude is the dominant one, there can be no reasonable doubt. In a very indirect, but at the same time in a very real and effective way, this manner of regarding economic activity is probably at the bottom of some of the restrictive practices of organized groups of workmen. But it is not within the province of this discussion to spread propaganda calculated to dissipate this common error. The task here is the far simpler one of pointing out that the limits of economic science, particularly in the treatment of the theory and facts of production, have been harmfully restricted by the influence of the pecuniary point of view. Because of this influence technological and psychological phenomena have been subordinated to those of the market, and inadequate theories of production have gained currency. From the standpoint, therefore, of both economic theory and economic measurement, the dominance of a money attitude has had the effect of diverting investigations from fields in which the scientific yield should be very high indeed. That investigators in these un-

† Mitchell, *Business Cycles*, ch. II, p. 21.

worked fields will meet new and unfamiliar problems is true. But the fear that the problems they will meet are insoluble will deter only the timid.

III

What types of problems, then, would more complete theories of production comprehend? The first step in the extension of the theory of production is the clear recognition of the place in theory of technological and psychological facts. Production may, from one angle, be considered as a synthesis of the contributions of managers, workers, and inventors. It is the function of political economy to be aware of these contributions; to know the conditions under which such contributions are advantageously made and the conditions under which they wither. Competent description of this kind of knowledge can be accomplished only through the medium of a relevant terminology. Money units are not specifically and directly relevant either to technological or psychological phenomena. So for the purpose of describing such phenomena, money units must be discarded.⁸ Once economic material is collected and organized from that point of view, discussions of the nature of production should assume another and more realistic form. Industrial history would then be not only an account of financial organizations and reorganizations, of price and wage movements, of financial and business crises, enlivened by incidental remarks on outstanding inventions and inventors, but also the story of the technical progress of industry. The history of the successive steps in the utilization of water power may not lend the romance to economic history that it deserves; but it cannot be doubted that an acquaintance with the course of water-power development is, at least, as essential to the intelligent understanding of economic progress as a knowledge of world changes in the output of gold. And what is true of a knowledge of the use of water power is equally true of the knowledge of a great mass of other technological developments.

Practically from the beginning of systematic political economy, the relevance of discussions of invention in theories of production was recognized. Except, however, for the observations of Adam Smith and the criticisms of Jevons, economic treatises are surprisingly barren of any adequate treatment of the course of invention. Here and there, stray facts appear, some new and some old, but progress in theory is painfully absent. And yet the problems of invention, in so far as they

⁸ By this I do not mean to question either the importance or the necessity of the analysis of price mechanisms and institutions. But I do mean that, for the purpose of explaining the kind of economic facts which I am here treating, the study of market processes and of prices has failed to provide illumination.

concern economic theory, are susceptible of systematic statement and probably of satisfactory solution. This gap in economic theory, like others of the same nature, is probably not due to any unusual difficulty in the problem but to an almost patent disregard of it. For the purposes of orderly treatment a theory of invention resolves itself into three or four constituent elements.

The first of these is concerned with the personality of the inventor. It seeks to answer the questions: "What kind of people are inventors?" "What are the conditions under which inventors invent?" On this point there has already been some discussion and inquiry. Interest in the question has turned on the place and influence of the pecuniary motive on the productivity of inventors. There seems at the present time to be no serious difference of opinion with regard to the existence of other stimuli that produce the kind of intellectual activity that leads to invention. But the real debate apparently centers on the question whether these stimuli (instincts of workmanship, contrivance, or creative impulses) are primary and dominant or secondary and subordinate; whether, that is, inventors would invent as freely as they do now without having always before them the prospect of economic gain. That the pecuniary motive is the significant one has for a long time been the tacit, if not the expressed, economic doctrine. But even the slightest survey of economic literature shows that, where the question has really been studied, differences of opinion have appeared. Taussig, for example, finds that "the social and economic structure being what it is now, and men being now under its influence, they are not likely to exert their powers for the general good unless guided, stimulated, and rewarded in much the same way as leaders in other forms of creative activity."⁹ Marshall, on the other hand, is not so sure on this point. "An improvement in business method," he writes, "is generally initiated by a man of affairs who sets himself to attain a particular practical end by the best route. The same is generally true of advances in industrial technic, in so far as they are made in the course of business; but the greater part of the work which lies at the bases of these advances is made by other men with different motives and different methods. It is made by mere students; that is, men who labor, not with reference to the attainment of any particular practical end, but in search of knowledge for its own sake."¹⁰

Now, it is true, as Taussig says, that "on these topics we are much in the dark." But that our ignorance is due to "the same cause that prevents decisive answers to many economic questions," namely, that

⁹ F. W. Taussig, *Inventors and Moneymakers*, p. 54.

¹⁰ Alfred Marshall, *Industry and Trade*, p. 203.

"we are unable, or at least unwilling to experiment with ourselves,"¹¹ is not so clear. At any rate, the problem is one that can be investigated with a hope of creditable, if not revolutionary, results; and economic dicta with regard to the matter can be removed from the realm of pure speculation to one of experience. An important beginning in this direction has already been made by Taussig in his study of the lives of a group of great inventors. What remains to be done will involve both the accumulation of the historical records of the reactions of inventors to their economic milieu and careful contemporary observation. The material for a more complete theory of this phase of invention cannot and, fortunately, need not be confined to that which may be obtained from formal biographical records. For the last few generations and perhaps earlier, inventors, in their relations to the industrial order, have made their contributions to the progress in the arts under varying conditions. It is in an analysis of these conditions and of the character of the contributions made under their influence that a part, at least, of the answer to our question should be found.

Disregarding, for the moment, brilliant individual inventors who work in isolation and who unaided plan, perfect, and exploit their own inventions, it may be said that much of the contemporary contribution to progress in the industrial arts originates in the technical and research divisions of private businesses and in the research laboratories of government bureaus and of universities. An increasing proportion of the great industrial enterprises in this country have organized as an integral part of their business large and continuous research divisions whose function it is to point the way to improvements in industrial technic. Depending on the nature of the industry, mining engineers, chemical engineers, chemists and physicists, agricultural and industrial chemists, rub shoulders daily in the quest for technical discovery. What factors determine the problems on which this army of scientists is put to work? What is the relation between the importance of their discoveries and the pecuniary reward they receive? Are discoveries in institutions of this character sporadic and revolutionary, or are they gradual, slow, and cumulative? These are types of questions on which a well informed opinion concerning the origins of invention must rest. The records for answering these questions are there. It is necessary only to study them. While it may be argued that problems of this nature are intricate and hence difficult, it is doubtful whether their intricacy is any greater than that encountered in studying other aspects of modern business phenomena. American economists, for instance, have always wanted to understand and explain the policies of

¹¹ Taussig, *op. cit.*, p. 19.

American trade unions. A knowledge of trade union policy assumes an acquaintance with human acts and attitudes of the utmost intricacy and obscurity. But the mere difficulty of the question has not stopped the search for light.

Alongside these men who apply their science in the laboratories of private business are the many public servants who are engaged in the same kind of pursuit under different auspices. In the Department of Agriculture a corps of men with scientific training spend their time in the public service on problems of agricultural technic. Similar groups in the Bureau of Mines and the Bureau of Standards do the same kind of work on problems of technic in other fields of industrial activity. And so on, throughout the whole structure of federal and state government in this country, there are thousands of men and women so engaged. Now there must necessarily be certain important points of likeness and of difference in the operation of these two systems of scientific investigation. Perhaps the men employed in public agencies are of a lower order of competence, or vice versa. Perhaps the discoveries made in private laboratories are applied more promptly and more efficiently to the machinery of industry than those made under the public control. It may, indeed, very well be that the needs of practical industry are so much more clearly known to the manager of the private research bureau that there he avoids all of the wastes of indecision and ignorance, and moves with his co-workers swiftly to the goal of his inquiry. Whatever the actual facts in the situation may be, here is obviously much food for thought and much material for political economy. On the face of the matter, too, it does not seem fantastic to ask for a comparative study in public and private research bureaus of the frequency, originality, brilliancy, and practicability of the discoveries made in each.

The field of comparative study may, indeed, be widened by introducing a third variable, namely, the conditions of discovery in the laboratories of universities. It is not difficult here to find men who have devoted their lives to search for truth; the pecuniary motive, if it functions at all, is far in the background. The university investigator, further, works apparently under conditions that are remote from the practical phenomena of industrial activity. He is regarded as having a detached and uninterested attitude toward the practical problems of economic life. This feeling about the university scientist is strengthened by an open lack of interest in him for the so-called applied science—the chemistry of perfumed soaps. It is frequently the guild principle among some scientific faculties that the task of their members is the pursuit of knowledge for its own sake. Now where this is true, what is the nature of the scientific output? Does the pursuit of pure science,

for its own sake, promote or retard invention as applied to industry? What, in other words, are the differences and similarities between the discoveries of university investigators and those of public and private servants? Can it be that the great basic discoveries which make possible the later progress in the industrial arts originate within the walls of our universities? Or are they the product of the well-equipped and efficiently organized laboratories of private business?

It should, of course, be clear that, in our present state of knowledge, it is impossible to present definitive answers to the questions we have raised. All that we can hope to do now is to find the problem, formulate it, and estimate its importance. But it may be well to call attention briefly here to observations on the same questions made by one or two economic students of the same problem. In an acute discussion of the conditions under which technical progress in industry takes place, Marshall not only recognized the existence of what we may call large-scale research and inventions but suggested the effects that the growth of such institutions might have on our traditional conceptions of motives. In some measure, he writes, "the world is saved by the influence of motives other than the desire for gain. To begin with, the increase in the size of industries is often accompanied by the substitution of scientific methods for empirical; while a sound basis of scientific technic is largely provided by laboratory work, to which an ever increasing number of elastic and enterprising minds are rising from among the people; being stimulated a little by the hope of gain, and much by intellectual ambition, and the sympathy of other students of science. . . ."¹² Similarly, much earlier, John Rae made in this very connection the interesting and pertinent suggestion that the motives that promote discovery and inventions, applicable to the industrial arts, are probably of the same nature as those that move men in the pursuit of pure science.¹³

The possibilities of a theory of invention are, however, not exhausted by the consideration of the incentives to inventors and discoverers. Of equal, if not greater, importance in the theory is the statement of the

¹² Alfred Marshall, *op. cit.*, p. 325.

¹³ "Our subject leads us to attend to invention merely as it concerns itself with the material world. But, as the motives exciting the men in whom it is exhibited to give themselves up to its requirements, must be held among the chief of the causes of its manifestation, and as they who in this department have been most extensively inventors, have in general communicated little of the principles that animated and sustained them in their career, science and art being silent of themselves, we may be allowed to give wider compass to our view, and to cite, when our purpose requires it, those who have been real discoverers in any of the various regions over which the power of this principle extends." *The Sociological Theory of Capital*, edited by Charles W. Mixter (1905), p. 132.

history of an invention after its discovery. It is a fact of common observation that only a very small proportion of the total number of scientific discoveries and inventions find practical application in industry. Some inventions are, no doubt, impracticable in every sense of the term. But is it generally true that suppression or exploitation of inventions in this country is dictated by a uniform business and industrial policy, the character of which is understood by economists and the effects of which on economic development are known by them? The probability is, rather, that business practice in this regard varies considerably from business to business, from industry to industry, from time to time. If our experience with this question exhibits a modal character, the nature of the mode still remains to be explained. One of the very striking business developments of the last generation has been the organization of great corporations whose primary function has been the exploitation and control of new machines. Such corporations are the United Shoe Machinery Company and the Owens Glass Bottle Blowing Machine Company. In organizations of this character are vested usually all of the rights to the machine and out of this control grows the power to determine the conditions under which the machine may be used. In the proper exercise of such power both the general public and inventors are intimately concerned; the general public because the policy of utilization has a direct and far-reaching effect on the performance of an industry which supplies its needs, and the inventor because the policy may result in the extension or in a complete restriction of his sphere of usefulness and activity. The enormous practical importance of this whole question has always been recognized with reference to the policy of organized labor. Opposition of trade unions to the introduction of machinery and restrictions of trade unions on the full use of machinery are universally considered in economic treatises. But the more fundamental practices of business in the same direction have received neither as competent nor as extensive treatment.¹⁴

A third phase of the invention problem is the relation between invention and patent legislation. An analysis of the character and effects of patent legislation should throw light not only on the influence of certain types of legislation upon the utilization of the fruits of invention but also on the incentives that motivate inventors. A recent student of the practice of suppression and non-working of patents finds

¹⁴ Studies by Professor George E. Barnett on the relation between the introduction of machinery and trade union policy are admirable exhibits of what research can accomplish in this field. See, for instance, his "Introduction of the Linotype," *Yale Review*, November, 1904; and "The Stonecutters' Union and the Stone-Planer," *Journal of Political Economy*, May, 1916. He has made also similar studies in other industries but these have not yet been published.

that the purchase and suppression of patents in this country promotes monopoly and also "discourages invention and retards industrial progress. . . ." He quotes a statement of the Inventors' Guild to the effect that "modern trade combinations tend strongly toward constancy of processes and products, and by their very nature are opposed to new processes and new products originated by independent inventors, and hence tend to restrain competition in the development and sale of patents and patent rights; and consequently tend to discourage independent inventive thought. . . ." This is, of course, an *ex parte* statement. But it is significant that the same writer leaves his discussion of this charge with the conclusion that "it is difficult to find specific evidence with which to prove this practice, as no general intensive investigation of it has ever been made."¹⁵ It is one of the functions of political economy to organize inquiries that attempt to supply the necessary evidence.

IV

While the first formulations of a scientific theory may contain all of the elements essential to the proper development of that theory, later influences may direct attention from these elements and thus limit the content of the theory. This is apparently what happened to the theory of production. Thus Cannan wrote some years ago that "a discussion of the different circumstances which regulate the amount of per capita produce is exactly what we should expect to find in a theory of production."¹⁶ And by this demarcation of the field, such a question as invention would find a respectable place in it as one of the "circumstances which regulate the amount of per capita produce." A second, and by no means less important, circumstance affecting the amount of per capita produce is the attitude of the worker toward his work. Traditionally this question has been treated as a problem in the incentives to economic activity. When the industrial machine is working smoothly and the rate of individual output seems to be reasonably high, the factor of incentives is regarded as having little theoretical or practical importance. But when, as during the past three years, the need of increased production appears, attention is centered on devices for stimulating men to work. Nevertheless, even in periods of the first kind, a science of economics, dealing as it does largely with the motives and acts of men, must build its principles upon a foundation of psychological observation. This necessity political economy has met in the past with a substratum of psychology characterized by extreme simplicity

¹⁵ Floyd L. Vaughan, "Suppression and Non-Working of Patents, with Special Reference to the Dye and Chemical Industries," *AMERICAN ECONOMIC REVIEW*, December, 1919, p. 693.

¹⁶ Cannan, *op. cit.*, p. 36.

and uniformity. Human nature it regarded as simple, and everywhere and at every time the same. Differences between men are external and ephemeral; similarities, deep-rooted and dominant. The mainsprings to economic activity were so well known that they could be and were reproduced in tables, in which motives or incentives were arranged in order of magnitude or strength. Such precision, of course, has its influence. If political economy consists of a body of economic principles, and if these principles rest in turn upon a fund of psychological observations, then the more certain we are of the truth of our psychological observations, the readier we are likely to be to accept the economic principles.

The psychological data on which economists built their systems are now being frequently and successfully challenged. While there is yet no complete psychological system to replace the one now in use, the observations of contemporary psychology are such as to indicate that motives are more complex and more variegated than the economists assumed. Attempts to revise political economy with reference to later psychological notions are now being made. In this neglected field brilliant contributions have already been made by Veblen, Mitchell, and Carleton Parker. It is unfortunate, however, that some of the large and important currents of economic thought have remained untouched by these developments. The psychology of the bulk of political economy is still the fruit of limited personal observation and of a species of introspection. When we remember that the contact of the average economist with many of the realities of economic life is slight and infrequent, then we may be pardoned for doubting that he is a representative type of economic actor and for doubting, therefore, that his contemplation of himself will produce a representative and reliable psychology.

Probably nowhere in economic writing has this failure to recognize the complexity and diversity of human nature brought results that more clearly need revision and restatement than in American studies of organized labor. Under the implicit influence of an economist's psychology, the American labor movement has acquired for the science of economics a homogeneity and uniformity which it probably does not possess at all. Not that there are not important and outstanding points of similarity in the movement; but that there are at the same time marked differences, and for purposes of understanding and explanation the differences are at least as real and as efficacious as the similarities. What there is of a labor movement in the South, for instance, is in many of its characteristics quite a different thing from the labor movement in New York City; and west of Chicago it is as different from that in New York as the movement in New York is from that in the South. Within the same geographical limits, also, the contrasts

are as striking as the points of agreement. One need only compare trade unionism in New York in the needle trades with that in the building trades; trade unionism in Chicago among the teamsters and chauffeurs with that in the packing houses. The existence and influence of types of trade unions were recognized and described by Hoxie; but the whole problem still presents a virgin field for further study. Economists must admit within the phenomenon of organized labor the existence of types of human behavior. The next stages in the investigation of trade unionism may with much profit be concerned with studying patterns of behavior; with relating these patterns to the technical organization of the industry in which members of the union work; with the financial and industrial policy of the business; with the conditions under which the workers live; and with the better known hereditary and environmental influences that are usually regarded as shaping the conduct of men. The program of research outlined with reference to this restricted field of economic activity should be no different in its essential details from that to be followed in discovering the cause and nature of economic behavior under other conditions. Economic life, in its largest sense, may be conceived as a mass of complex situations. Among the many factors that are responsible for creating economic situations, certainly two are always active. These two factors—technology and psychology—act and react upon one another. It is impossible to conceive scientific progress without a painstaking and detailed study of both.

V

No analysis of the prevailing economic theory of production is complete without the consideration of such elements of the theory as have been the subject of inquiry but where physical and technological factors have not received the attention they deserve. The problems of the utilization of natural resources and of the localization of industry answer this description. Each is a problem that has its technological side. Political economy has treated both problems; but the terms of its treatment have been general, and it has failed to bring to bear upon them pertinent technological material. The gaps, in this case, must be filled with facts about business practice and with evidence designed to test the soundness of our generalizations. The foundation of the economic life of the United States consists of an enormous reservoir of natural resources—plant, animal, and mineral. The well-being of the community depends upon their effective and restrained utilization. Whether or not the people of a country receive to the full the benefits which should come from the possession of natural resources depends upon the degree to which business practice recognizes and accepts the

limitations imposed by the natural or technological characteristics of the resources. In economic writing, analysis of the problem of natural resources has been limited almost entirely to pointing out the relation between a growing population and the inevitable exhaustion of material resources. The implication is that the rate of depletion is a function of the rate of growth of the population. Hence the rate of fall in the average standard of living in a country is also, after a certain point of development has been reached, a function of the rate of growth of the population. But scientific theory does not gain strength and conviction by being general and vague in its terms. The more specific its observations, the greater its body of supporting evidence, the more reason there will be for accepting its principles and generalizations.

Engineering art and technological science have only within the past decade accumulated and interpreted a vast body of material with regard to natural resources. The contributions from these sources are important in that they indicate, first, the availability of substitutes for various classes of natural resources, and, second, that they describe the wastes due to unregulated exploitation both in the early and late stages of the processes of industry. With such resources as coal, crude oil, timber, the history of depletion has not been the simple one of the encroachment of a growing population on limited reserves; but the situation has been overcomplicated by the injection of a set of business motives and practices that also have had their effect on the rate of exhaustion. These motives and practices, sometimes due to ignorance of scientific methods, sometimes to the mad desire for temporary advantage, constitute influences which no representative system of political economy can afford to ignore. In very much the same way, business practices and customs, almost independent of changes in the size of the population, are represented as leading to waste in industrial consumption at stages in the industrial progression far removed from the natural resources themselves. Recent studies by mechanical engineers of the technology of coal, for instance, point to wastes in production and consumption of coal beyond all imagination. The elimination or reduction of these wastes can only be accomplished by a study of the economic causes from which they originate and the economic situations in which they thrive. The existence of natural resources is an economic fact; their depletion is also an economic fact. All of the situations, customs, practices, motives, that determine the nature of the exploitation of the resources are, like price control, speculation, industrial combination, and so on, the materials with which an economic science must work. It is not enough to say that natural resources tend to become exhausted and that exhaustion follows increases in the population. We must go farther and analyze the conditions that are responsible for

rapid depletion and ultimate exhaustion. Is it too much to ask of economic theory that it estimate for us the cost, in any terms, to present and future generations of exploiting our natural resources at a rate much slower than the actual one?

In very much the same way as business custom and practice involve waste as well as efficiency and advantage in the use of material resources, the movement from one place to another within a country of business and industrial establishments similarly produces waste and expense as well as benefit and gain. If the development of transportation facilities permits the fuller utilization of geographical advantages and superiorities, it is at the same time true that railroad-building and ship-building are costly. The underlying assumption of economic theory in this regard has always been that the gains outweigh the costs. In an automatic way, industry becomes localized in one place rather than in another because of the operation of one or all of the following factors—proximity to raw materials, availability of power and transportation facilities, the presence of auxiliary industries and of capable and trained labor. If this be a true analysis of the major forces that have stimulated the building of industries in the places in which they are now found, then the advantages of the present and future localization of industry are what they have always been assumed to be. Indeed, however great these advantages may be they would redound to the benefit not only of enterprisers but also to that of the general community.

But on what specific evidence does this theory of localization rest? Is it an explanation after the fact or a statement of the advantages that accrue one, ten, fifty years after settlement of an industry in a new situs has taken place? May it not, indeed, be that to an unknown degree the kind of localization of industry which we see has thrown on the general community a burden of direct and indirect cost for which there has been no proportionate return in benefit? Throughout the whole development of rail transportation in this country, factors making for increase in cost have generally been operative. Considered in simple terms, any railway rate structure which was not based on the factors in localization enumerated above would produce a localization of industry that, in its origins, at least, would not satisfy the needs of a program of economical national development. Yet the local favoritisms incident to the railway history of this country are matters of common knowledge. In quite the same way, the general competition among American municipalities for factory and business settlements involves those communities in costs which they do not see but which are nevertheless real. Reduction in the tax rate to new manufacturing enterprises may constitute a legitimate aid to localization, but it can-

not be so considered until its further consequences are known. Migrations by manufacturers to escape labor conditions imposed by trade unions exhibit the same kind of conflicting evidence. The chronicle of such movements for the purpose of deriving the advantages of an available supply of labor is an old one in economic history. The clothing industry in England is placed where its leaders can use as labor the wives and children of dock laborers. The wives and children of American miners are the magnets that attract the textile mills in this country. And in the present migration in the clothing industry from cities to rural settlements, similar forces operate. That localization of this character contributes to the general level of well-being is a gratuitous assumption that is certainly open to question.

The question is all the more valid when we reflect that the change of situs is dictated not by economic considerations alone, but by a combination of economic and "moral" principles that are very hard to disentangle and to weigh. If such influences as these are at all universal, much of the localization of industry we are acquainted with cannot be satisfactorily explained in terms of arithmetic formulae of geographical diversities. For there resides in the condition of localized industry much that is artificial and deliberate, much that is due to the purposeful adoption of one economic policy as opposed to another, as well as much that results from the free and unimpeded operation of pure economic forces.

VI

If what has been said concerning the insufficiencies in the theory of production carries conviction, we should agree that economic theory must open its doors to the psychological and technological material that will shed light on its problems. The admission of such material and analysis of it by means of a relevant terminology should have not only theoretical but important practical bearings. Nowhere is this clearer than in the contemporary practice of wage adjustment. If, in this confusion of wage principle and practice, any theories of wages at all seem particularly to challenge attention, they are the theories contained in the expressions "standard of living" and "the ability of industry to pay." In the highly organized industries, in which the employer and working forces are more evenly balanced, wage adjustments are more and more being made with reference to one or another of several standards of living and to the ability of the industry to stand a further increase in wages. With regard to both measurement and theory, it is becoming increasingly difficult to make decisions without invoking material not yet found in traditional economic writing. The leap from one part of an economic text, where the national dividend

is described as a flow of physical goods and services, to another, where wages, rent, and interest are described as \$30 a week, \$500, and 6 per cent per annum, raises questions which arbitration boards and negotiating bodies cannot dodge. There is, in the first place, the simple fact that "standard of living," assumes a real meaning only when it can be expressed in terms of physical and nutritional units. In fact, during the past five years types of standards, so constructed, came widely into use, principally because standards expressed in money units did not throw that direct light upon human needs and comforts which an intelligent consideration of the question required. But if there is any advantage in the use of such a physical standard, it is most likely to be derived from a comparison between that standard and the capacity of the whole of industry to meet it. Such a comparison, of course, our present system of money accounting does not pretend to make. Another angle of the same problem appears in even a more interesting form in the attempt to determine the ability of a single industry to assume a specific wage scale. At first the discussion was altogether in terms of money wages, prices, and profits. But in the English coal mine adjustments, while the same elements still remained, the scope of the inquiry was soon widened to include material on the per capita output of miners, the total product of the British coal mines, the internal and external coal requirements of the country, and the factors responsible for variations in output. Without a consideration of these factors, intelligent settlement of the dispute would have been impossible. Simple as it may seem on its face, the whole procedure is revolutionary in that it makes possible the admission as economic evidence of a whole new range of economic fact, hitherto inadmissible. The English coal mining industry was, of course, at the time under arraignment, and the nationalization issue was in the air. But there is evidence that the same kind of tendencies are already at work in this country in connection with industries that, as yet, show none of the earmarks of public utilities.

It may, however, be argued that interesting as these problems are, the material with which they can be solved does not exist. The reply is, that here, as elsewhere, scientific material is not at hand until there is someone prepared to use it. The whole experience of statisticians and economists in Washington during the war pointed to the existence and availability of facts about industry the reality of which will never be admitted except by those who worked with them. No one would say that the need for an index of physical production is any more real and urgent today than it was ten years ago. Yet with practically no new material, the recognition of the problem has produced, first, the measure

of national production by Mitchell in 1919, and, second, extensions of the same device by Stewart and Day at the present time.

The task outlined in this paper may seem to be a job of a large order. It is. But in its essential character it is no different and no more arduous than that which always confronts the builders of any science. The work of Galton and Pearson, Davenport and Pearl in biological science produced in that field results as revolutionary as any that may be proposed in economic science. Not only was the problem in biology one of admitting new material, but there was also the further necessity of providing biologists with the technic of mathematical statistics. The development of biometrics finds its counterpart in the profound changes that the science of chemistry has gradually experienced. With the rise of physical chemistry, and the hypotheses of colloidal chemistry, the limits of chemistry were extended and the essential elements in the personal equipment of chemists were forced to keep pace. In political economy the matter seems no different. Formal delimitation of the scope of the science cannot be defended unless it results in positive, concrete, scientific advance. It may be convenient to know precisely what the limits of the theory of production are. But if the knowledge and the practice lead to sweet contentment and nothing else, the wisdom of the limitation may well be questioned. It has become customary, unfortunately, to lead the graduate student in economics through a first minor in history and a second minor in political science; or vice versa. This regimen has created a definite attitude toward the character and content of economic theory. To satisfy the new demands of the science, the course of training may have to be changed, just as it has been in other fields of knowledge, to enable the investigator to collect and interpret another type of material. With a background of psychology and technology, the future economists will enter an unploughed field, full of promise and hope for economics as a science.

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AN INDEX NUMBER OF PRODUCTION¹

The fluctuations in the physical volume of production must be measured before they can be interpreted or controlled. The nature and causes of the increase in production, the relative significance of the various sources from which products are drawn, the extent of the waste involved in the decrease of output during periods of industrial depression are matters to be determined quantitatively. These changes are the outcome of influences so diverse that in order to explain them casually the date and the degree of the fluctuations must be specified. To make these measurements is the purpose of an index number of production.

The need for such measurements is so evident and the use of index numbers of prices so common that the question arises why index numbers of production were not made long ago. One explanation lies in the kind of limits imposed upon inquiries by the traditions of economic theory, limits which left the study of production in terms of physical units outside the pale. When the economist regarded production as a technological process it became to him a mass of bewildering details. Technology seemed to comprise fields of specialized knowledge either beyond the comprehension of an economist or at least beyond the reach of his theoretical formulations. The variety and unfamiliarity of the units of measurement, the rate of change in methods of production, the scale and complexity of industrial operations discouraged any search for generalizations. Such a field, he concluded, might better be left to the specialists, to the technicians of industry. So far as economic theory was concerned, therefore, the cause and consequences of the growth of technology remained the great unknown, and conclusions from deductive arguments were protected by the phrase "assuming the state of the industrial arts to remain the same." In the meantime, the problem of properly managing our industrial resources suffered from the faults characteristic of all merely specialized thinking.

A further reason why the economist shunned the analysis of the production process in terms of physical units is that, in common with the business community, he believed the facts could be adequately stated and handled in pecuniary terms alone. He congratulated the community on having a common denominator of money in which to do its thinking. Like the accountant he took inventories in terms of dollars and cents and in the absence of any specific knowledge about the changes in the volume of goods and of equipment he ordinarily assumed a co-

¹ A paper read at the Thirty-third Annual Meeting of the American Economic Association, held at Atlantic City, December 28, 1920. In the collection of the statistics and in the computation of the index numbers the writer has had the assistance of Miss Caroline Emerson and Miss Stella Stewart.

incidence between statements of money values and the underlying industrial quantities. Statements of national income and of national wealth in money terms may be given a clear meaning, but to fund these items and measure them in money terms alone is to obliterate distinctions which must be preserved if we are to understand and administer industrial processes. No question need be raised about the usefulness of this pecuniary accountancy for business purposes; likewise there can be no question about the need for an industrial accountancy for industrial purposes.

A system of industrial accountancy cannot be confined to recording the activities of a single plant; it must measure the flow of products from great groups of industries. As industrial economists we are interested not merely in the management of single factories; we are concerned also with the effectiveness of the correlation between industries and groups of industries. Fields, mines, factories, and railroads working together under a coördinated plan make up the industrial system; their total product is largely determined by the effectiveness with which they come into gear with one another. What is needed, for purposes of measurement and for guidance, is a system of index numbers of production so constructed as to reveal the behavior of the industrial system in its parts and as a whole.

Experience in the construction and use of index numbers of prices indicates the methods to be used in measuring the changes in the level of production.³ In making a production index one is confronted with difficulties similar to those met in constructing a price index. There is the problem of selecting the commodities to be included, the choice of base periods, and the problem of weighting the selected samples in such a way that each will have its proportionate influence upon the final result. To an explanation of how these problems were dealt with in the construction of the present index number of production, we may now turn.

³The work of the Price Section of the War Industries Board was especially useful in making a choice of methods of construction. In addition to the index of prices, an index was constructed under the direction of Professor Wealey C. Mitchell, measuring the fluctuations in the physical volume of production for the period 1913 to 1918. (*History of Prices During the War. Summary.* War Industries Board Price Bulletin, No. 1, pp. 44-46.) Also Mr. Wolman, as chief of the Division of Statistics of Production, made it evident during the war that the problem of production could be handled statistically. Out of the war experience, in fact, there came a new recognition of the desirability of measuring the physical volume of production. Mr. Edmund E. Day, working from much the same data as those used in the present study, but by a somewhat different method, has also just completed the construction of an index number of production. (*The Review of Economic Statistics*, September-December, 1930, The Harvard University Press.)

This index number is based upon a total of 91 different series of commodities.^a For two thirds of these, production figures are available for every year from 1890 to 1919, and for the remainder the information is available beginning in 1904. The following table shows the number of commodities in each of the groups and sub-groups:

All Commodities.....	91	Materials	39	Manufactures	50
Materials	39	Farms	16	From farm products...	23
Manufacture	50	Mines	13	" mineral products	23
Transportation	9	Forests	7	" forestry products	4
		Fisheries	9	" fishery products	1

Of the 50 different series under Manufacture, 14 are not manufactured products, but are estimates of the amount of certain materials used in manufacture. In the absence of information about the production of cotton cloth, for example, the figures showing how much cotton was used in manufacture in a given year were taken as indicating the production of cotton textiles in that year. In other series, imports of certain materials were taken as indicating the production of the commodities into which they entered. This method of estimate was not used where there was reason to believe that the accumulation of stocks from one year to the next was an important factor.

The production statistics of certain commodities were excluded from the index. The figures for the production of distilled and fermented liquors, for example, were not used because they are for fiscal years while the other data are for calendar years. The decision against these series was made only after fair trial, and when it became evident that production figures for the year ending June 30 could not be used as equivalent to the production for the year ending December 31, if the purpose were to make year to year comparisons.

The figures for the production of freight cars, passenger cars, and locomotives, which are available for the entire period from 1890 to 1919, were also excluded because during that period the type of car and of locomotive underwent great change. Though today they pass by the same names they are in reality quite different products. The locomotive increased from the average weight of approximately 40 tons to 89.5 tons. The average capacity of freight cars almost

^a A list of the commodities arranged by groups, and a table of the index numbers are presented on pages 67-69. The sources of information were for the most part official publications. Among these were the bulletins issued by the various bureaus of the Department of Agriculture, the Geological Survey, the Bureau of the Census, the Bureau of Fisheries, Bureau of Internal Revenue, Bureau of Foreign and Domestic Commerce, and the Interstate Commerce Commission. Other sources were the publications of such commercial organizations as the American Iron and Steel Institute, the New York Board of Trade, and the New Orleans Board of Trade.

doubled. Numbers of freight cars and of locomotives, therefore, are not satisfactory statistical units to use in a measurement of changes in production over long periods. It is hoped later, however, to make use of these figures in a study of the changes from year to year in the output of equipment.

In some instances the series included are the result of estimates. In the live stock industry, for example, a large number of estimates were necessary and the results are only partially satisfactory. From 1907 to 1919 the figures for meat production are based upon the number of animals inspected for slaughter, and a further estimate for the slaughter which did not come under federal inspection.⁴ Prior to 1907 the figures for inspected slaughter cannot be used as indicating meat production. For the earlier years, therefore, the estimates are based on the differences between receipts and shipments of cattle, hogs, and sheep in the fifteen principal markets. These markets include the great packing centers. A comparison of receipts minus shipments with the figures of inspected slaughter during the period when the latter are trustworthy, shows that though the degree of fluctuation is not the same yet they agree in the direction of change. In the absence of anything better, therefore, the differences between receipts and shipments were used as indicating the general trend of meat production.

Another industry which required calculation, but not estimates, was Transportation. Here it was necessary to convert figures for ton-miles and passenger-miles from fiscal years to calendar years. The method of conversion consisted, first, in pro-rating the fiscal year total of ton-miles among the months, the basis of the distribution being the percentage of the annual freight revenue received each month; second, in adding up the ton-miles by calendar years. The same method was used to convert fiscal year totals for passenger-miles into calendar year totals. This was done for each year from 1907 to 1916, when the Interstate Commerce Commission began publishing the figures by calendar years. The information necessary to make the conversions was not available back of 1907, and consequently from 1890 to 1907 the figures for transportation service are for fiscal years.

There are other estimates involved in establishing the 91 series but this is not the place to set them forth in detail. The instances that have already been given are typical of the difficulties with which one is confronted in taking the initial step of selecting the commodities to be included.

⁴ From 1911 to 1918 the figures used are those furnished by the Food Administration, which make allowance for the seasonal fluctuation in the weight of live stock. See *Production of Meat in the United States and its Distribution during the War*, by Stephen Chase, Food Administration, 1919.

In view of the various degrees of importance of the different commodities included in the index a system of weighting must be used. Weights are provided in order that each commodity, standing as the representative of part of a sequence of production, may exercise upon the index number an influence proportionate to its importance. For the purposes of the present method of weighting, the production process is regarded as consisting of a series of sequences, each starting from some initial raw material, and passing through various stages to the finished product. It is important in such a plan to avoid duplication in those series which have a large number of representatives, and to give wherever possible the full value of a sequence to such representatives as can be found.

In the beginning, therefore, the so-called raw materials produced at farms, mines, forests, and fisheries are weighted according to their value at the place of production. The average farm values, for example, in the base year, are taken as indicating the importance of each of the materials from farms. Each manufactured commodity is then weighted according to the "value added" to it by manufacture, that is, the difference between the initial value of the constituent materials in the base year and the value of the commodity at that particular stage of manufacture in the same year. So, for instance, coke is included only at the difference between its value and the cost of the coal used in its manufacture, and structural steel only at the value by which it exceeds the steel ingot from which it was rolled. Thus the value of the sequence as a whole is distributed among its various representatives. In cases where there is a single series it carries the weight for the whole sequence. For instance, "wool, used in manufacture," is weighted for all the products manufactured from wool. In deciding upon the weight to be assigned Transportation it was necessary to estimate the "value added" by the transportation service and to divide it between freight and passenger service. The "value added" was estimated by subtracting from the operating revenues the cost of materials, including an allowance for depreciation chargeable to operating expenses. Various methods of estimate have necessarily been used in determining the weights, but the objective has remained the same—that is, the assignment to each commodity of a value which when it was added to the values assigned other commodities in the same sequence would keep that sequence in proper proportion to other sequences.

The results of the system of weighting, so far as it affects the degree of influence exercised by each group upon the All Commodities index, is indicated by the following table. The figures are percentages showing the distribution among the various groups of the total pro-

duction aggregates (production in physical units multiplied by weights) for the year 1914.

All Commodities	100	Materials	51	Manufacture	35
Materials	51	Farms	39	From farm products...	21
Manufacture	35	Mines	9	" mineral products	13
Transportation	14	Forests	3	" forestry products	1

The year 1914 has been used as a base year for purposes of weighting, because of the information made available in that year by the Census of Manufactures. The question arises, in view of the business conditions which prevailed during 1914 whether that is a satisfactory year to use as a base for weighting. It has been thought that the depression in that year may have affected industries unevenly. The following table, which shows the percentage distribution of the total "value added by manufacture" among the various groups of industries, for four successive census years, may be used in determining that question.

PERCENTAGE OF TOTAL "VALUE ADDED BY MANUFACTURE"

Group	1914	1909	1904	1899
All Industries	100.0	100.0	100.0	100.0
Food and products	10.0	8.8	8.6	8.6
Textiles and products	14.4	15.4	14.8	15.2
Iron and steel and products...	14.8	16.0	16.0	16.9
Lumber and manufactures.....	8.5	10.2	11.2	10.9
Leather and products	3.6	3.8	3.9	3.8
Paper and printing	8.7	8.5	8.8	8.2
Liquor and beverages	5.3	5.7	5.7	6.0
Chemicals and products	7.2	7.0	7.0	6.4
Stone, clay and glass products.	3.8	4.1	4.3	3.8
Non-ferrous metals and products	4.0	4.1	4.2	4.5
Tobacco manufactures	2.9	2.8	3.3	3.5
Vehicles for land transportation	4.5	3.0	2.3	2.6
Railroad repair shops	3.0	2.6	2.6	2.4
Miscellaneous	9.3	8.0	7.9	7.2

The table indicates that in spite of changes in prices, methods of production, and conditions of business, there is a remarkable degree of constancy among various groups of industries with respect to the percentage of the total "value added by manufacture" contributed by each group. During the entire period each of the fourteen industries occupies approximately the same rank with regard to the others. Such changes in relative importance as actually took place between 1909 and 1914 are not due exclusively to the character of the business conditions in 1914. Five years elapsed between the census takings, and even if business conditions had been the same in the two years, there would have been some shifting in industry. Since the same general propor-

tions are maintained throughout the period it seems satisfactory for purposes of the present system of weighting to use figures from the census of 1914.

One further technical point needs to be noted. When the list of commodities was revised in 1904 to include the new commodities for which production statistics had become available by that year it was necessary to adjust the production aggregates for the years 1890 to 1903 during which those commodities were not included. This adjustment was made simply by raising the series of aggregates for the earlier years to the level of the aggregate of 1904 with the new commodities included. Since the index measures only the relative changes this adjustment does not affect in any way the fluctuations of the index in the earlier years, and it makes possible the inclusion of commodities which could not otherwise have been used.

This statement of methods may now be brought to a close by reciting briefly the steps in the computation of the index number. These computations consist for a single year in multiplying the production of each commodity in that year by the assigned weight, and then adding these results to obtain the production aggregate for that year. The weights, of course, are kept constant so that in the calculations for the successive years the only variable is the production in physical units. When this is done for each of the thirty years the result is a series of total production aggregates and series of sub-totals for the groups which may be turned into relatives on any base desired. The base selected for the index numbers here presented is the average production aggregate for the three pre-war years; that is, the average of the production aggregates for the years 1911 to 1913 is taken as 100.

We may now consider the fluctuation of these index numbers as shown by the charts and comment briefly on the meaning of those fluctuations. Chart I furnishes a comparison of the changes in the level of production with the changes in the level of prices. The chart is a graphic representation of the All Commodities index of production and the All Commodities index of prices as given in the table on page 68. Perhaps the most apparent fact is that prior to the war inflation the volume of production rose at a rate more rapid than the level of prices. During the period from 1890 to 1914 the index of production rose from 45 to 101 while the index of prices rose from 82 to 101. But during the next four years, that is from 1914 to 1918, the level of prices rose 99 per cent above the pre-war level, while production increased 23 per cent.

This increase in production looks small compared with the rise in prices, yet it is in itself a remarkable fact. It is still more remarkable that in an earlier period of the same length production increased at an

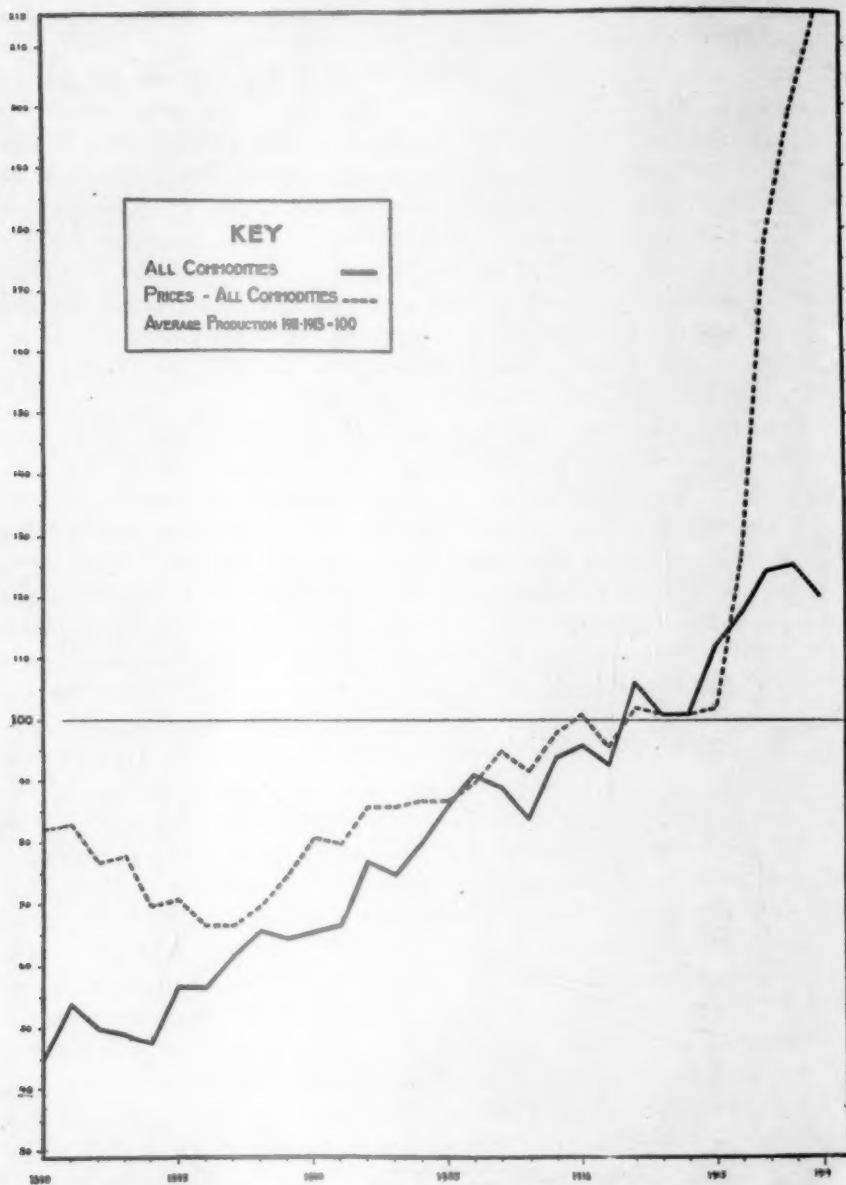


CHART I.—WEIGHTED INDEX NUMBERS OF PRODUCTION AND OF PRICES
 Index of production includes 91 series; index of prices is that compiled by Bureau of Labor Statistics. Base periods, 1911-1913 = 100.

even more rapid rate. From 1908 to 1912 the increase was 26 per cent. Both periods begin in a year of depression and end at a peak of industrial activity. The increased production of the war period, therefore, was not due merely to a patriotic effort to increase output, but was made possible by the industrial slack which existed in 1914.

The sources of this increased production of the war period become more evident from an analysis of the curves on Chart II. This chart presents the index numbers of Total Materials, Total Manufactures, and Transportation. From 1914 to 1915 there is a marked increase in all three. After 1915, however, Materials does not rise above the point reached in that year, while both Manufacture and Transportation make great advances in 1916 and rise again in 1917. Some conception of the magnitude of the task performed by the railroads while under government operation is apparent from the chart. At a time when the aggregate production of the country was increasing 24 per cent, the burden upon the railroads increased by 41 per cent, and this increased traffic was carried without substantial increases in equipment.

A comparison of the curves for the entire period of thirty years shows the relative rates of increase of the three groups. Transportation ranks first in the rate of growth, manufactured products second, and materials third. There is a similarity in the movement of the Transportation index and the index of Manufactures, especially over the period where both are on a calendar year basis. Prior to 1906 the effect of using fiscal year figures for Transportation can be noted. The use of totals for the year ending June 30, makes the changes come a year later than the corresponding changes in Manufacture.

We speak of the rate of growth in production, but the increase has not been a steady advance. The tendency of prices and production to keep step is especially significant in those periods when the volume of production falls off because of the condition of the markets. As a single instance, take the depression year of 1908. A striking fact in that year is the divergent movement of Materials and of Manufacture. The output of materials actually increased while the production of manufactured goods decreased. The explanation for this divergence seems to be that the production on farms is not under the influence of market conditions to the same degree as production at mines and factories. In 1908 the production of corn and wheat and hay and hogs and cotton was greater than in 1907. But the production of bituminous coal was 62,000,000 tons less, a decrease of 16 per cent; the output of steel was 9,300,000 tons less, a decrease of 40 per cent. Though the cotton crop was greater by 19 per cent, there was less cloth produced, because the cotton actually used in manufacture decreased 9

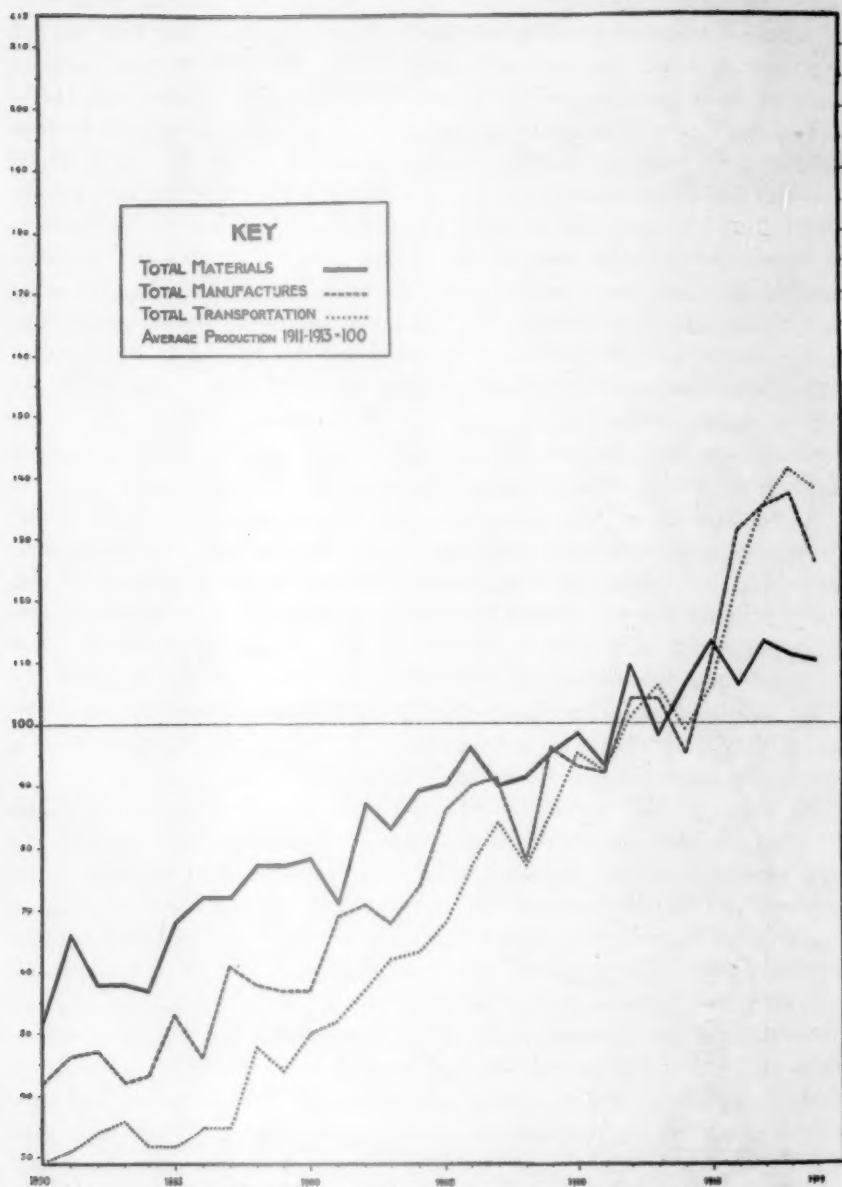


CHART II.—WEIGHTED INDEX NUMBERS OF PRODUCTION

Index of Materials includes 39 series; Manufacture includes 50; Transportation, 2.
Base period, 1911-1913 = 100.

per cent. The farms were busy, but the textile mills and steel plants were idle.

Perhaps these figures in physical units seem unfamiliar and you prefer to count the loss in money values. Assuming, then, that in 1907 the national income was \$30,000,000,000, whatever that may mean, the decrease in total production in 1908 of 5.36 per cent cost the country over \$1,600,000,000. I would add other items to this total, but I know of no way to include in the reckoning the costs in worry and privation borne by men out of work and by their families. This decrease in production occurred not because there was a shortage of materials nor a lack of equipment, nor because there were no men willing to work, but because there was not an adequate organization for bringing these elements together for the purpose of producing goods.

Such, approximately, were the losses due to the depression of 1908. We are now entering another depression, the duration and intensity of which no one can predict with certainty, and as a community we seem to count the losses as inevitable. To regard waste of such magnitude as the necessary accompaniment of business cycles and to give up the problem of stabilizing the level of production is to confess our incompetence.⁵ Instead of such confession, however, one ordinarily hears complaints about workmen soldiering on the job. For the analysis of such problems we need a re-introduction into economic theory of the concept of waste, and we need the tools to locate and to measure it.

In conclusion, the index numbers here presented are not to be regarded as definitive and final. They are in the experimental stage and are subject to additions and betterments whenever a way of improvement is suggested. As information concerning the output of other commodities becomes available they may be included in the index. The present method of construction permits their inclusion without breaking the continuity of the index. The gathering of such additional information and the testing of the adequacy of existing data are tasks which must not be slighted. In the present state of the statistics of production such work is more important than the choice between alternative methods of organizing the information after it is once collected. So long as whole industries are omitted from the index, such as the building industry, the work of measuring the changes in the volume of production is little more than begun. Certainly the extent of agree-

⁵ One plan for stabilizing production was proposed by Professor David Friday a year ago, while there was still a chance of preventing the present decline in output. See article in *Journal of Political Economy*, February, 1919, entitled, "Maintaining Productive Output—A Problem in Reconstruction." Whatever the merits of his particular proposal may be he has at least recognized the nature and seriousness of the problem.

INDEX NUMBERS OF PRODUCTION
(Average production 1911-1913 = 100)

Years	Materials			Manufacture			Trans- portation	Prices ¹
	All commodities	Total materials	Farm materials	Minerals	Total manufacture	Manufactured from Farm products	Total trans- portation	All commodities
1890	45	52	57	30	42	61	17	92
1891	54	66	73	32	46	68	16	83
1892	50	58	62	34	47	67	19	77
1893	49	58	63	34	42	61	16	78
1894	48	57	62	33	43	61	17	70
1895	57	68	74	37	53	75	23	71
1896	57	72	79	39	46	65	20	67
1897	62	72	78	40	61	87	26	67
1898	66	77	84	43	58	78	32	70
1899	65	77	82	45	57	70	38	75
1900	66	78	82	53	57	74	35	81
1901	67	71	73	55	69	97	44	80
1902	77	87	92	57	71	87	50	86
1903	75	83	86	64	69	83	49	86
1904	80	89	94	66	74	91	52	87
1905	86	90	94	74	86	98	71	87
1906	91	96	100	77	90	97	83	90
1907	89	90	89	86	91	98	82	95
1908	84	91	95	79	78	94	57	92
1909	84	95	95	87	96	102	88	98
1910	96	98	98	94	93	95	92	101
1911	93	93	93	93	93	97	85	96
1912	106	109	111	101	104	102	107	102
1913	101	98	96	106	104	101	108	101
1914	101	106	108	100	95	103	85	101
1915	112	113	116	108	111	110	110	102
1916	117	106	101	123	131	117	123	126
1917	124	113	110	131	135	118	135	178
1918	125	111	108	132	137	126	145	199
1919	120	110	112	112	126	120	118	213

¹ Bureau of Labor Statistics index converted to base 1911-1913 = 100.

ment among the index numbers of production which have so far been constructed is no more significant than the fact that they all have the common shortcoming of omitting the building industry. Any interpretation of these index numbers must begin with a recognition of those industrial activities which are now unmeasured and omitted. The increase in precision will be in proportion to the attention paid these present shortcomings.

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LIST OF COMMODITIES INCLUDED IN INDEX OF PRODUCTION

MATERIALS FROM

I FARMS:

Apples
Barley
Corn
Cotton, raw
Hay
Oats
*Peaches
Potatoes, white
*Potatoes, sweet
Rice
Rye
Sugar, beet
Sugar, cane
Tobacco
Wheat
Wool, raw

II MINES:

Coal, anthracite
Coal, bituminous
Copper
Gold
Iron, ore
Lead
Petroleum
Pyrites
Quicksilver
Salt
Silver
*Sulphur ore
Zinc

MANUFACTURE

V MANUFACTURED FROM FARM PRODUCTS:

Coffee, used in manufacture
*Cotton, used in manufacture
Cotton seed
Cotton seed oil
Cake and meal, cotton
*Hulls, cotton
*Linters, cotton
Hemp; Manila, used in manufacture
Jute, used in manufacture
Sisal grass, used in manufacture
Molasses
Cigarettes
Cigars
Tobacco and snuff
Wheat, used in manufacture
*Beef
*Mutton
*Pork
*Hides, cattle
*Skins, sheep
Silk, used in manufacture
Wool, used in manufacture

VI MANUFACTURED FROM MINERAL PRODUCTS:

*Brick, common
*Brick, front
*Brick, vitrified
Cement
Coke
Copper, used in manufacture
Gold, used in manufacture
Pig iron
Steel ingots and castings
*Bars, merchant
Plates and sheets
Rails
*Structural shapes
*Skelp
*Wire rods
*Tin plate
Nails, cut
Nails, wire
Lead, used in manufacture
*Lime
Silver, used in manufacture
Tin, used in manufacture
Zinc, used in manufacture

III FORESTS:

- *Douglas fir
- *Hemlock
- *Oak
- *Spruce
- *Western yellow pine
- *White pine
- *Yellow pine

IV FISHERIES:

- *Cod
- *Haddock
- *Mackerel

VII MANUFACTURED FROM FOREST PRODUCTS:

- *Lath
- *Shingles
- Turpentine
- Rubber, used in manufacture

VIII MANUFACTURED FROM FISHERY PRODUCTS:

- *Salmon, canned

TRANSPORTATION

IX TRANSPORTATION:

- Freight—ton miles
- Passenger—passenger miles

* Included from 1904-1919.

DISCUSSION

CARL SNYDER.—In his comprehensive work on *Business Cycles, 1913*, Mitchell pointed out as among the first requisites for a larger understanding, the need of an index of the physical volume of trade. An inquiry undertaken by the writer showed that a reliable index of the volume of trade was much more difficult of compilation than an index of production in the leading lines of industrial activity, including, of course, agriculture. But the preparation of this latter revealed that an index of production is likewise probably the most accurate index of trade that we have. There is probably no great variation in trade aside from the variations in product. That is to say, what is produced is very largely consumed year by year; and there appears to be very rarely any accumulated surplus of moment.

Probably the best general index of trade that we had was the bank clearings outside of New York City. It had been supposed that these grew more rapidly than the general trade of the country, and also that they were very greatly affected by periods of intense speculative activity, like those of last year.

Prior to 1890, these clearings did grow very rapidly, owing to the rapid extension of the clearing house system, and the actual number of clearing houses. Subsequent to 1890 these clearings, corrected for price changes by dividing by the Bureau of Labor's index of commodity prices, show a fairly consistent growth at the average rate of close to 4 per cent per annum. The preparation of an index of production revealed that the average annual increase in the product was practically the same. Periods of speculative activity do show a sensible variation between the two indices; but only for a brief time.

It is remarkable that, until the present year, there had been no serious effort to measure the total national product or its rate of growth over an extended period of years. This was the more regrettable, for it left the field wide open for the most conflicting views as to whether production in a given year was low or high, labor inefficient or the reverse, whether there was a scarcity of goods, and so on.

Professor Kemmerer had made an excellent beginning in his *Money and*

Prices, and Professor Fisher had attempted the same thing in the working out of his standard work on the purchasing power of money. Then, as so often happens, the problem was attacked anew this year, from somewhat different angles, by Dr. King, Dr. Stewart, Dr. Day, and the present speaker. A very substantial agreement appears between each of the investigations. Dr. King obtained weighted averages embracing 15 principal products; and these averages show a fairly steady rate of growth of about 3.4 per cent per annum. Dr. Stewart's line shows about the same trend. Dr. Day had not yet combined his series into a single line. We took simple averages of his unadjusted indices for his three series, and obtained a slope of close to 3.5 per cent.

We worked out three different series, first one of 28 principal products running back 40 years; then one of 49 items running back 50 years; and finally one beginning with these 49 items and adding others as rapidly as they were available, so that for the last 20 years the average was above 70 and latterly the total number of items 87. Unweighted averages were taken of these, and, save in the earlier period from 1870 to 1890, there was no substantial difference between the three series. Taking the slope only from about 1890, the rate of increase on the first was 4.3 per cent; on the second, 49 items, about 3.3 per cent; and on the longest list about 4.2 per cent per annum.

The problem of weighting is obviously a difficult one, and the method necessarily one of arbitrary choice. Happily, the number of items available is large enough so that, as Bowley, Mitchell, and others have been at much pains to demonstrate in other fields, there was no very marked difference, save in minor details, between these and the weighted averages of King, Stewart, and Day. In general all of these agreed in a slope, in the last 30 years, of around $3\frac{1}{2}$ to 4 per cent.

Considering the amount of material available, its nature, and the considerable probability of error involved, it may now be said with confidence that this is approximately the annual rate of growth within the last generation. It will be noted that this rate is considerably lower than that estimated by Professor Fisher, and somewhat lower than that of Professor Kemmerer. This also disposes of the idea that the ton mileage of the railroads is a good index of production. For the last 40 years the freight traffic of the railroads, expressed in ton miles, has shown a remarkably even growth at the rate of about 6.2 per cent, or 50 per cent greater than any probable rate of production growth. This simply expresses the fact that, as the urban population grows and production is concentrated more in large centers, the greater must be the haul of food, fuels, and materials back and forth to feed and supply this population and their specialized industries.

The fact which stands out, of course, in all these investigations, is the amazingly even character of this production growth, and how very slight is the variation in the flow of goods from year to year throughout periods of wide prosperity or deep depression; how slightly it was affected by the war, and how little relationship it often bore to the prevailing spirit or traditional idea of any given time. Thus, the period after the great panic of '73 is usually referred to as one of the deepest depressions the country ever knew, and yet, beginning a year or two after that panic there appears to have been a very marked expansion, at a rate seldom equalled since. We

have here a transfer of the usual delusion that profits and prices are a measure of the real prosperity of a nation.

In the same way we see that there was, contrary to almost universal impression, no unusually rapid expansion in the late war. The peak appears to have been reached in 1916 or 1917—there was seemingly little difference in the total of the two years. And in the same way, contrary to almost universal expectation, there has been no great diminution since the war closed. So we had no huge surplus of goods to dispose of. On the contrary, there never seemed a greater scarcity than last winter and last spring; and never such an extraordinary rise in prices in peace times.

So far as we can judge, there has been, between the last five years, no very great difference in the total of the annual product; and the considerable increase in the rate in 1916-1917 has been compensated, apparently, by a somewhat lower rate since. From this I think we can say pretty surely that there is no huge overgrowth of manufacturing or productive capacity in this country, save perhaps in a few lines too obvious to need mention. So there does not seem any cause for apprehension that the present depression through which we are passing will be of any longer duration than those of the past; and in the minds of many careful observers the forces at work are such as to make this depression, for the United States perhaps, briefer and lighter than for any of the other great commercial nations.

In the same way it is perfectly evident that between the total of the national product and the general price level there is only the slightest discoverable relation, and this only of the briefest duration. Periods of the most rapid growth in production, as in 1874-1880, have likewise been periods of rapidly declining prices; and vice versa.

Hardly greater foundation has the traditional belief that "iron is the barometer of business." It is no doubt true that the volume of new construction makes up the larger part of that which we call the business cycle, that is, the variation between periods of expansion and relative quiescence. And iron and steel are, of course, a most important element in this new construction. It is further probably true that when the steel trade is good, other business is brisk and profits satisfactory. But just as the variation in the mercury tube in extreme depression and a "high barometer," when everyone feels buoyed up, is normally on the order of less than 5 per cent, so we may say that the difference in national product from one period to another is probably not much more—8 or 10 per cent at the outside, as measured by years.

The difference produced by extreme depression and prosperity in the iron trade is fairly set forth in the estimates of manufacturing products which have been given us by Dr. Stewart and by Dr. Day. For the rest, it is evident that the iron trade lags rather than leads the general expansion, and is one of the last of the industries to feel the turn of the tide, as was so notably evident this year.

But if the problem of measurement of the national product has now been disposed of, there still remains yet another, and that is the measurement of the current product; and for practical affairs this is of far greater importance. The variations in the business cycle, as Professor Mitchell has so clearly set forth, lie perhaps as much as anything in a dislocation between the even pace in the different lines of industry—too rapid expansion in one direction, too little in another, so as to disturb the normal equi-

librium. The whole of the national product does not greatly vary, but that of the several industries may vary quite widely. Now, in very large part, goods are exchanged for goods and services for services; and if there be overexpansion in this line or that, there comes inevitably overproduction in special lines, a period of crisis for these industries, unemployment, failures, and all the traditional phenomena of lack of balance.

This and little else is what is happening now. It is not because of any fall in our foreign trade, or because of overextension of credits abroad, or the inefficiency of labor, or any of the nine and forty special reasons which are always urged at such times. Our foreign trade has been good, but it has not been enormous. Its rate of growth over the last ten years was not deeply affected by the war. It is not now due, it does not seem to me, for any violent or long-continued collapse. And if national production has been at the peak of its history in the last five years, it is very evident that the idea of the inefficiency of labor is very largely a subconscious impression, or what Professor Ogburn would probably call a wish thought.

What is troubling us is simply industry out of balance. In certain particular and very obvious lines we have been going a little too fast. Now, if we wish to get rid of these periods, or cycles, of industrial disturbance, we ought to know that the several industries are marching in step, in other words, what is the current rate of production in the several lines. This is one question that has especially engaged my department this year. We have so far been able to obtain satisfactory indices in about 25 of the major industries of the country, including perhaps 60 or 70 per cent of the raw products and basic materials, and in some of the more fundamental manufactures, as the production of pig iron and steel, refined sugar, refined copper, and so on.

In the course of a few months we hope to have at least ten or a dozen more, and with these we shall have, I think, a very clear and accurate picture of the industrial flow from month to month. By reducing each of the industries to a common denominator, we shall know by means of index figures exactly whether we are producing very much more pig iron or copper or sugar, or importing much more rubber or silk or wool than the normal need. It was very striking, when we first obtained these indices, to note how clear was the overproduction in certain lines and the very large certainty that there would be inevitably a collapse in these special industries. In fact, from the relative height of the indices you could pretty well pick them off in the order in which the decline would and did come.

The preparation of these indices was obviously a much more difficult matter than the annual product. For here we have to deal with a wide seasonal variation. In many lines, as for example the milling of flour, the slaughter of meat, the production of sugar, cement, and, in fact, a majority of the industries, the variation may be very wide, amounting to as high as 30 or 40 per cent above or below the average for the 12 months of the year.

To work out this seasonal index it was needful to have the figures of production by months for a series of years, ten or twelve at least, and then to determine by examination of the scatter as to whether this seasonal was fairly even and whether a given industry tended to run fairly true to form. In most of the cases a fairly satisfactory seasonal was obtainable, in some less so. But now that we have some 25 or 30 of the major industries, the individual variations are ironed out so that, in the summation of the aver-

ages, we have a fairly good picture of the nation's monthly product. And as one industry after another is added to the list, the picture will, of course, become more complete and satisfactory.

A summary of these monthly indices in 1920, follows:

INDICES OF CURRENT PRODUCTION AND TRADE

1920

BASE: AVERAGE OF THE TWELVE MONTHS OF 1917=100

SEASONAL VARIATION ELIMINATED

	1919 Average third quarter	1919 Average fourth quarter	1920 Average first quarter	1920 Average second quarter	1920 Average third quarter	July	August	September	October	November	December
1. Pig iron	82.2	71.5	98.5	90.5	100.2	99.4	100.9	100.4	98.5	93.2	85.0
2. Steel ingots	85.4	73.9	98.5	90.0	96.9	98.2	98.8	98.7	92.7	86.0	75.5
3. Bituminous coal	91.6	75.8	99.2	96.4	96.0p	97.4p	98.3p	92.3p	99.4p	114.3p	110.4p
4. Anthracite coal	92.6	94.3	89.4p	85.1p	77.7p	94.9p	87.4p	50.9p	86.7p	89.7p	101.9p
5. Copper	67.2	71.0	76.1	73.5	70.1	69.7	74.0	66.7	66.9	67.8p	60.8p
6. Tin deliveries	64.3	114.1	98.4	92.3	97.7	114.7	77.7	100.8	70.8	70.4	53.5
7. Cement	92.9	97.8	121.7	94.6	97.9	92.3	98.2	103.3	116.2	124.5	136.0
8. Petroleum	123.3	119.1	125.5	134.3	140.8	140.6	143.7	138.2	144.4	141.1	142.1p
9. Gas & fuel oil rfd	127.7	129.0	120.5	129.8	154.1	143.4	159.2	159.7	157.1	167.0	
10. Cotton consumption	90.7	91.7	97.1	96.1	88.7	94.4	87.7	83.9	69.7	59.1	52.4
11. Wool consumption	110.1	119.1	125.7	105.5	68.5	68.5	70.1	67.0	71.0	51.9	
12. Silk imports	165.1	120.2	144.7	91.7	78.5	104.8	81.2	49.4	43.4	39.1	
13. Wheat flour	119.3	109.2	113.1	95.1	97.0e	115.4e	94.7e	81.0e	82.1e	75.5	76.3e
14. Cattle slaughtered	105.1	104.0	107.0	97.9	92.5	89.3	91.5	96.6	82.4	89.3	74.4
15. Swine slaughtered	115.0	108.3	115.0	120.7	115.5	114.1	117.5	114.3	102.3	103.3	94.0
16. Sheep slaughtered	145.2	148.1	118.7	108.2	128.2	134.6	123.8	126.3	113.3	114.1	113.0
17. Sugar refined	121.7	94.1	124.9	121.0	108.8	129.2	121.2	76.0	89.6	76.9	81.9
18. Tob., cigars & cigs	93.4	106.7	113.8	106.4	93.2	91.7	98.0	94.8	87.4	83.0	73.3
19. Rubber imports	114.7	157.7	222.0	130.1	130.5	135.8	160.9	94.3	66.0	98.5	
20. Wood pulp	93.6	111.5	106.2	124.7	108.2	111.2	108.8	104.6	113.8	116.0	107.7
21. Paper	113.5	118.7	125.5	131.0	132.2	133.6	132.6	130.4	126.2	105.1	90.4
22. Railway car output	181.6	103.2	52.7	37.7	40.5	30.0	43.7	47.9	66.2	68.5	85.0
23. Locomotive output	59.8	30.5	26.2	43.2	52.9	45.8	62.2	50.8	79.2	72.1	75.8
24. Building activity*	73.3	73.4	56.9	36.1	33.9	33.1	37.5	31.1	29.4	32.4	37.9p
25. Imports	122.5	124.2	132.7	131.9	140.1	155.9	151.4	112.9	105.9	111.8	98.5p
Average of 25 comparable items	106.0	102.7	108.4	98.6	97.6	101.3	100.6	90.9	88.4	89.6	
Bank clearings outside New York City	121.5	117.1	112.8	108.2	118.2	112.1	118.1	124.5	121.1	124.0	133.5p
Railway tonnage	103.0	97.1	108.8	104.8	117.6	118.8	118.3	111.5	111.6	103.8	94.8p
Employment, New York	95.5	98.6	102.7	101.9	98.8	100.8	98.3	97.4	95.8	89.1p	83.3p
Bank clearings, New York City	117.5	113.0	98.8	92.2	95.9	92.8	93.5	101.4	99.9	108.1	122.0
Shares sold, New York Stock Exchange	179.0	199.1	152.4	117.3	89.6	81.1	88.7	98.9	88.4	142.7	156.1
Per cent of firms failing to firms reporting37	.36	.32	.41	.50	.48	.50	.52	.52	.70	.85
Exports	106.5	78.9	96.7	99.9	95.5	108.7	92.9	85.0	89.0	90.0	99.4p
Foreign trade tonnage	105.8	107.6	121.8	121.0	139.5	128.8	142.6	147.2	165.6	155.5	

e Estimated
p Preliminary

* Base = 1916
° Price change allowed for.

H. S. PERSON.—Mr. Wolman's paper is an argument for an extension of the factual basis on which the theory of production rests, and not a discussion of that theory. The thesis seems to be embodied in the following sentences: "While the first formulation of a scientific theory may contain all of the elements essential to a development of that theory, later influences may direct attention from these elements and thus limit the content of the theory. This is apparently what happened to the theory of production." "It is one of the functions of political economy to organize inquiries that attempt to supply the necessary evidence."

That "later influence" which has apparently directed attention from the elements essential to a proper development of a theory of production, according to the author, is the dominance of the price concept in industry and in economic theory; he believes that the relation between the real facts of production—physical output—and monetary valuation is far from simple and constant; that the habit of recording these facts in pecuniary terms has not only resulted in a misinterpretation of many of them but has, so to speak, laid a smoke screen between observers and a multitude of new facts of recent industrial development, and that our problem is now one of eliminating the smoke in order to observe these new data and bring them to bear upon the theory of production.

I agree with the author that the theorists have largely failed to observe and analyze these new data, particularly those pertaining to the technological and psychological aspects of industry. Their analysis would undoubtedly yield new corollaries to the theory of production, but I have no idea whether or to what extent it would modify the fundamentals of that theory. I believe also that the habit of recording the facts in pecuniary terms has hidden or perverted many of them, but I doubt whether that explains why the theorists have not kept contact with their data. The body of economists is not large; the routine of the classroom preëmpts the greater part of their energies; their research is highly individualistic, while the field of inquiry has broadened so much as to demand coöperative research; economists, like other folk, are subject to inertia and yield to the line of least resistance; above all, the new research requires actual participation in industrial operations—the most significant of the new facts cannot be observed from without. May not these circumstances go a long way towards explaining the theorists' inadequate knowledge of the technology of industry and of the psychology of worker, manager, capitalist, and entrepreneur?

When the economist has broken away from the classroom and from exclusive dependence on the library, he has brought back rich treasure. Carleton Parker placed himself cheek and jowl with the worker and the boss, and came back with new vision born of new facts; a Hotchkiss, Jacobstein, Leiserson, Willits, or a Wolman break away, sit at the table of negotiation with managers and workers, and discover new cold, hard facts of industry of which the theorist has not yet taken account in his reasoning; a Friday yields part of his abilities to the demands of industry, and is emboldened by what he observes to add a corollary to his theory of production—that the producers' out-of-pocket expenses be insured by the state. During the war many young economists were torn from their particular interests and in emergency service were made aware of the extent and depth of the untouched field of data and of the resources hidden in it. Let us hope that in

their re-adjustment to peace conditions they are not returning to exactly their former limitations.

These limitations to an adequate familiarity with the new facts of industry have been due chiefly perhaps to the economist's organization for the pursuit of his professional activity. He has been so limited in freedom for contact with industry as to have been able to make the contact with the high spots of industry only—with presidents, directors, and general managers; through annual reports and general reviews of business conditions. It has been felt that these high spots are the rich spots to tap, for it is there that results are summed up, judgments made, and governing policies determined. But the apparent advantage of such contact is precisely the disadvantage. In the first place, the point of view of the administrators in private industry is determined by the profits motive; their facts are translated into pecuniary terms, and their summarized data and judgment made on that basis. The economist, however, must interpret facts from the social point of view as well, in order to secure theories universally true; and to accomplish that end he should have the naked unit data. In the second place, the summaries at the top are not only inadequate summaries of the facts they represent but they ignore a vast quantity of vital facts at the bottom. Presidents and directors and many managers are as ignorant of the real facts at the bottom of their industries as are the economists; beneath the hard crust of surface facts is a seething boiling mass of facts seeking for expression at the top, of which they know only too little. It is not true that all administrators are ignorant of these facts (the Dennisons and other resident directors of relatively smaller units are not); but in the larger unit there is woeful ignorance and it is at the top of the larger industrial unit that the economist, for some reason or other, believes it profitable to have the contact.

Furthermore, non-coördinated specialization among economists is in part responsible. Specialists in theory have remained too much aloof from the contacts which can furnish them the new data for their reasoning, and those whose specialization has afforded them contacts with the new data have too frequently lost touch with the formulators of theory and the results of their investigations have not become available to the latter. There must be specialization, the field is so vast, but we must learn how to coördinate it.

The theory of production which we have modified but little was formulated when the trading motive dominated a productive activity which expressed itself chiefly in the household and in the small factory. It is to be assumed that Adam Smith and his successors got a pretty good picture of the individual worker, the individual master, and the individual trader of that day, each the member of a homogeneous group. But since then, in the United States particularly, the changes have been momentous. The trading motive still dominates the mind of administrator and even of manager, but the elements of production he directs to his purposes are now infinitely varied, complicated, highly technological and psychological, and neither he nor we have more than scratched the surface in the effort to classify and appraise them. It is no longer merely land, labor, and capital—or management, labor, and capital—but hundreds of kinds of land, thousands of kinds of technical, material forms of stored-up capital and—who yet knows how many—kinds of workers, all offering a confusing number of permutations and combinations of practical situations. It is now a canon of management

engineers of the highest professional standing that there is no one best system of management which is transferable and applicable in detail to any two establishments; each establishment is a problem unto itself of development for productive efficiency. Is it unreasonable to assume that were the economist, like the management engineer, to spend a season in the shops and in the offices, he would find it necessary to at least supplement his standard theory of production by a large number of significant corollaries and exceptions? Might not the textbook in economics take on the appearance of a Latin grammar?

In such an excursion he would meet workers face to face and each with an individual temperament and reactions; he would be in practical relationship with those incorporeal entities called "labor organizations," no two of them exactly the same, no one yet understanding their motives and purposes or guessing what these will be tomorrow and again the next day; he would be puzzled how to adjust to his theory the claim of the worker that the latter's dedication of self to an industry is as much an investment to be capitalized and guaranteed an income as is the investment of capital; he would be still more puzzled over some workers' assertion that an individual's dedication of self to an industry is as much entrepreneurship as is any other kind of risk. He would meet the boss—the liaison officer between management and worker—and find him in his technical relations and psychology elusive and difficult to comprehend; he would have contact with the management and be amazed at the multitude of varying technological and psychological problems involved in coördination and direction; he would study the general manager—the liaison officer between entrepreneur and management—and find him between the devil of the entrepreneur's trading motive on the one hand and the deep sea of technological difficulties on the other hand. He would search for that clean-cut individual of economic theory—the entrepreneur—and wonder where to find him: he would observe stockholders who are theoretically entrepreneurs and practically irresponsible investors; bondholders who are theoretically lenders and practically controlling administrators. He would observe the motives for, consequences of, and reactions to arbitrarily overextended or overrestricted production. He would come away with a trunk full of recorded facts to classify and analyze, a haze of impressions to clarify, and possibly a number of corollaries modifying his conventional theory of production in the classroom.

In conclusion I take the liberty of offering a few practical suggestions to this national assembly of fellow-economists: Establish as a professional group a long-run policy of going after the elemental facts of actual industrial experience for what bearing they may have upon the formulation of a twentieth century theory of economics as follows:

1. Catch our incipient professor of economics while he is still a student, and inspire him to make an important part of his training, service in shop and office as a wage-earner in contact with fellow wage-earners, bosses, and technical processes;
2. When the time comes to add him to our teaching and research staff, organize his work in such manner as to permit occasional genuine excursions into the field of industrial service;
3. Appoint a commission of this association to develop plans for co-ordinated research in graduate schools;

4. Establish closer relations (without impairing the autonomy of either) between our schools of commerce or business administration and our graduate departments of economics—the former are accumulating data and formulating principles which would be available to the coming theorists;

5. Bring thinking managers and even workers into the teaching of theory—not in the conventional way of permitting them to talk on whatsoever they may choose, but in a manner which requires them to discuss, in the light of their experience, phases of theory which have been submitted to them in A B C terminology;

6. Establish closer relations with the engineers in their professional associations—they have begun to consider industrial problems in a theoretical way, and, although deficient in a background of training in the social sciences, they can bring keen and splendidly trained minds, and a fund of experience with technical processes and with men into our discussions;

7. Agree upon and formulate some method of standardizing the dollar, and educate business men and other electors and eventually the congress to the necessity of its adoption—then will be removed a defective instrument which makes for confusion in our measurement and valuation of the facts of production;

8. And alongside this more precise pecuniary measure of production in terms of "material units," start one under the auspices of this association, or promote one already established, and make it so useful as to compel its continuance by an agency of the government.

WILLFORD I. KING.—Logic appears to demand the consideration of theory before proceeding to deal with its application; hence, I shall first discuss Professor Wolman's paper.

I believe none of us will disagree with his statement that the measurement of the national income from year to year is a laborious task. It is by no means easy even to approximate it in terms of money value. The chance of error is somewhat increased if we proceed to convert this money value into a commodity index—in other words, into an index of purchasing power. However, I feel that the chief difficulty involved in this operation lies in the first step rather than in the second. The prices of different groups of commodities fluctuate in a manner so similar that indices of average prices are likely to be very much alike no matter what particular process is followed in their computation. Once given, then, the actual money or, to be more accurate, book income, it is perfectly feasible to obtain, through division, by any one of a dozen different types of index numbers, quotients which will represent with an accuracy ample for most practical purposes changes in the average economic welfare of the people.

The second problem mentioned by Professor Wolman, namely, the measurement of the changes in the national wealth from year to year, is, in the present state of our statistical knowledge, a decidedly more difficult one than that of ascertaining the national income. There are two chief obstacles in the road to success in this direction: first, we have less accurate and much less frequent measurements of the value of the components of our national wealth than we have of the various items composing the annual product of our different industries; second, no one seems to have taken the trouble thus far to construct an index number measuring the average changes

in value of our chief articles of wealth. Once a properly weighted price index has been computed showing the changes taking place from year to year in the average prices of such goods as farm and urban lands, houses, factories, office buildings, machinery, livestock, raw materials, household furnishings, etc., it will then be more practicable to ascertain changes in the real national wealth by dividing the totals of the money value of our possessions by this price index for the same year. As Lauderdale pointed out over a century ago, it is impossible for all values to rise together, hence this method would tend to solve the problem of what to do with rising values of land, minerals, and forests, for their rise would be balanced by falls in the relative values of other groups of commodities. It appears, therefore, that we can scarcely hope to obtain really valuable estimates of changes in the national wealth until some painstaking work is done in the way of computing an adequate index of average prices of the more important articles making up our national equipment.

I cannot share with Professor Wolman his apparent feeling that it is practically impossible to differentiate "the larger facts" from "irrelevant and insignificant detail." It seems to me that this task is one of the essential duties of a statistician and that it ought to be a prime function of economists. Details are all of interest to some one, but only a limited number of generalizations have any appeal for the great majority of mankind—or even for scientists. This is necessarily true because the human mind is incapable of visualizing more than a very limited number of facts at one time. The man who can best hew away all non-essentials and display the chief facts and forces in clear-cut silhouette is, to my mind, the scientist who has achieved the highest mark of success.

If I interpret correctly Professor Wolman's position, he believes that the development of economic theory will be greatly furthered by substituting, in general, training in psychology and industrial technique, for that in political science and economic history. As a matter of fact, is it not true that the field of economics has grown so large that no one can hope to cover it all? Furthermore, is there any advantage in attempting to delimit the field? Why not let students working along the borderland class themselves where they will? Whether the investigator calls himself a psycho-economist or an economic-psychologist is wholly immaterial so long as he is conversant with his line of inquiry and seeks to set forth the facts as they are.

Specialists in psychological and industrial economics we must have, as also men who study out in detail the historical development of economics and its legal and social relationships. But is it more essential that every economist should be an expert psychologist than that he be a trained historian or a skilled mathematician? Is there any real evidence, for example, that the theory of value would have been much further advanced today had economists been schooled in psychology and technique at the expense of history and mathematics?

I am inclined to doubt that lack of familiarity with industrial conditions and a poor understanding of psychology have really handicapped to any considerable extent the leading students in the realm of economic theory. The economist in a garret poring over musty tomes and dealing with mechanical automatons rather than with men as they actually exist may be a most useful character for a novel but it has never fallen to my lot to meet a Queed or even a near-Queed in real life. I am inclined to believe that

while better training in psychology and in the technique of industry are to be heartily commended because they will prove effective in opening up new fields of research, it is nevertheless probable that such training will improve relatively little the clarity of the reasoning required in dealing with such time honored subjects as the theory of value.

It does not seem to me that a lack of special training along the lines suggested by Professor Wolman has been the chief hindrance which has prevented economists from being as successful as scientists in other lines in establishing a large mass of accepted laws. I would suggest that the most important real obstacle which has prevented the attainment of this desired goal is the attempt of economists to state their ideas in the language of everyday conversation. The motive behind this policy is the admirable one of trying to bring the facts home to the masses of the people, but this effort has resulted disastrously in other directions. Because the words used by the man on the street have numerous meanings, economists have themselves become confused by their use or have spent the time in fruitless arguments over definitions which should have been devoted to the development of new ideas. But, still worse, this use of ordinary words for technical purposes has enabled charlatans of every sort to bury the studies of the real scientists in a veritable avalanche of wholly worthless pseudo-economic literature. Under these circumstances, how can one expect the man on the street, who is supposed to be the beneficiary of this policy, to pick out the few grains of gold among the great mass of debris? Since he finds no harmony of opinion but only numerous degrees of variance, he naturally concludes that economics is not a science but a mass of confused and aimless bickering and discussion.

The obvious remedy for this state of affairs is for economics to take refuge in that stronghold long ago sought out by nearly every other science, a complete technical terminology which the person ignorant of the science is totally unable to use. This, to my mind, will do more than any other one thing to advance economic science and to secure for it the general recognition and respect which it deserves.

The very fact that modern statistical economics has a technique so complex that to a considerable degree it excludes popular writers from the field, is today helping to gain prestige for this phase of the science. The addition of such carefully worked out studies of fundamentals as the set of indices of physical production just presented by Professor Stewart will do much to add to this feeling.

Furthermore, it is most gratifying to see that different economists working in very different ways should arrive at indices of production so similar as those which have recently been developed. I have plotted together Professor Stewart's index for manufactures and that published by the Harvard Committee on Economic Research and find that the two conform very closely indeed, both in trend and in cyclical fluctuations, though Professor Stewart's index is about ten points higher than the other during the years 1916 to 1919 inclusive. I have also compared Professor Stewart's index for all commodities with a similar one prepared recently under my direction for the Bankers' Statistics Corporation and find the trends almost identical throughout, though differences of a year appear occasionally in the cyclical crests. This is probably due to different methods used in converting reports for fiscal years to a calendar year basis and to different ways of

treating agricultural products. Professor Mitchell's index of the production of all raw materials differs somewhat from Professor Stewart's similar index for the years 1913 to 1918, but does not diverge widely therefrom.

The chief peculiarity of Professor Stewart's indices, both for all commodities and for manufactures only, is that they show a rise in production from 1916 to 1918 while the Harvard index and mine both show a fall during the same period. A study of the data leads me to believe that this difference arises from the fact that Professor Stewart has directly or indirectly weighted mineral products much more heavily than has been done in the other cases cited. Without making a painstaking investigation of the facts, it is impossible to express an opinion as to which weighting is the more logical one.

To my mind, however, the really significant fact is that the trends of all these independent indices, though computed in rather radically different ways, are so nearly uniform that there can be little doubt that they represent the approximate truth. This arrival at harmonious results concerning the volume of production seems to add another stone of some importance to the foundation for economic research.

THE WEBBS' CONSTITUTION FOR THE SOCIALIST COMMONWEALTH¹

If looked at from the standpoint of the ultimate goal, the Webbs' plan for a constitution for the socialist commonwealth of Great Britain, while economically sound, is politically and humanly impossible. If looked at from the standpoint of the immediate situation, it is a masterpiece of analysis, criticism, and construction.

The authors had before them the guild socialism of England, with its sisters and cousins, the soviets of Russia, the syndicalism of France, the independent socialists of Germany, and the Plumb plan of America. The genesis of this interesting family of reconstruction is the "self-governing workshop" of employees electing their foremen, superintendents, and board of directors, affiliated with other shops of the same industry and governed by a national board of representatives from the shops—in other words, government by producers. The Webbs proceed to extirpate this idea by history, logic, and argument *ad hominem*.

✓ They show that producers' coöperation has always failed. Even when it succeeds, the insiders close their doors to outsiders, and become "associations of small capitalists exploiting non-members at wages." To elect their own bosses is to make it impossible for said bosses to maintain discipline. And, *ad hominem*, would you have the officers of a trade union elected by the stenographers, clerks, and janitors whom they now employ or by the rank and file of the union? If so, that would be not democracy but the negation of democracy (pp. 158-160).

✧ On the other hand democracies of consumers have wonderfully succeeded. The 1500 coöperative societies, with their wholesale agencies, with an annual turnover of £200,000,000, a banking turnover of £1,000,000,000, and a manufacturing output of £60,000,000, all governed by manual workers, are the present achievement of the twenty-eight Rochdale pioneers of 1844. Most significant of all, they succeed as great employers and farmers, manufacturing products, growing tea in Ceylon and wheat in Canada, operating steamships and warehouses, employing 200,000 wage-earners, and even taking over the bankrupt democracies of producers. Moreover this kind of democracy, unlike that of producers, "automatically remains always open to newcomers."

But these democracies of consumers are as "soulless" as capitalists. They know quantity, quality, and price, but not the human aspirations of their 200,000 employees (p. 23). Here is where the democracies of producers come in, and will be needed just as much in the socialist commonwealth as in the capitalist one. Their function consists in mutual

¹ Sidney and Beatrice Webb, *A Constitution for the Socialist Commonwealth of Great Britain*. (New York: Longmans, Green & Co. 1920. Pp. xviii, 364. \$4.25.)

insurance and in maintaining the standard rate, the normal day, and the conditions of employment through collective bargaining. Even in the socialist commonwealth, they must retain the right to strike, and will retain it if, according to the plan, the democracy of consumers is not allowed to have the use of the military as strike breakers (p. 141). But it is "highly improbable that matters would often come to such a pass," for a strike on a large scale is unlikely, if "once the distorting influence of profit is out of the way." Furthermore, in the socialist commonwealth the legitimate retort to "direct action" from one of the democracies of producers, such as a strike of the coal miners, is not to be the military, but "direct action" by the other democracies who "refuse to supply them with spirits, beer, picture-palaces, and tobacco" (p. 298). This looks mildly like the conforming process adopted in Lenin's dictatorship of the proletariat, made possible there, however, by an army of the proletariat.

The democracies of consumers, in the socialist commonwealth, will be of two kinds, as they now are of two kinds, voluntary and obligatory. The voluntary are the above-mentioned coöperative societies which purchase food, clothing, coal, etc., and build homes for members. The obligatory are the municipalities which provide water, gas, electricity, drainage, etc., and which already employ, in Great Britain, a million wage-earners (p. 11). Every person in the several local areas is a member of these obligatory democracies of consumers. A municipality is "not wholly autonomous, as the ultimate control is shared between the local electors resident within its area and the electorate of the nation as a whole." The national government places three limitations on the freedom of local government, the limitation of the several national minimums of schools, sanitation, relief of dependents and police force; a limitation of the purposes and powers for which they may incur expense; and a limitation in the interests of financial accuracy and solvency (p. 10).

Up to this point the great work which the Webbs have heretofore done in portraying the history and philosophy of unionism, of co-operation and of local government, is admirably summarized. But now we come to the ultimate goal.

This begins with the national government, and here is the democracy of citizen-consumers. Here the Webbs split from, and yet agree with, the guild socialists. If I understand the ultimate goal of the guild socialists, it is based on the hypothesis that sovereignty is not indivisible but is "plural." The so-called "state" is but one of the several forms in which people associate for common purposes—but it is not supreme over the other forms, it is only "first among equals." The most important of the other forms are the democracies of producers,

and, so, the coming parliament of England will be a producers' parliament equal in power but separate from the other existing parliament that now controls the army, navy, and police.

Here is the split and the agreement. While shattering the guild socialists' dream of a "self-governing workshop" with its producers' parliament, the Webbs' succumb to their dream of a plural sovereignty. Like the guildsmen, they would have two parliaments, a political parliament and a social parliament, each with its executive. But the social parliament would be a *consumers' parliament*, instead of a producers' parliament. On the political parliament they seem to agree. The political parliament would handle the army and navy, foreign affairs, colonies, criminals, and courts of justice. The social parliament would handle the "mental and physical environment of the present generation," and would provide for the future of the community. This would be done by the nationalization of all profit-making industries and services not municipalized by local authorities.

This social parliament would divide itself into committees, each in control but not in administration (p. 189) of its particular industry or service. The administration would be devolved on its executives and on that "civil service of exceptional capacity and integrity" which "it has been the supreme good fortune of Great Britain" to have developed "during the past century" (p. 67).

Most important of all, the social parliament would control prices, taxes, and wages—prices, because it operates the industries; taxes, because the political parliament must not be permitted to run off to militarism; wages, by collective bargaining with the producers' democracies. While the Webbs apparently agree with the guild socialists in the control of prices and taxes, they split on the control of wages.

The social parliament in both plans will control prices and taxes, and here they agree. The political parliament must come to the social parliament with a budget for the army, navy, police, and justice. The social parliament cannot amend the details of the budget, it can only fix the aggregate. There is, however, a suggestion that, "if after conference between the two assemblies, a total could not be agreed upon, the difference might be settled by the aggregate vote of the members of the two parliaments in joint session assembled" (p. 124).

On other points of conflict between the two national assemblies, the "law courts" would decide, and so, we find the latest socialism taking refuge in a supreme court of the United States. "As in the United States to-day," say the Webbs, "any enactment by either the political parliament or the social parliament which went beyond the powers entrusted to that assembly would, in effect, be declared unconstitutional" (p. 141).

XThe great advantage of the plural sovereignties of the Webbs and the guild socialists, over the unified sovereignty of Marxian socialism, realized in Russia, is the liberty of the individual and the private ownership of a large bulk of the property, such as homesteads, not used for profit. With a social parliament equal in power to a political parliament, and with trade unions and professional associations independent of either and sovereign in their own field with the right to strike, the individual is expected to slip through with a large amount of personal liberty and private property.

The guild socialists, however, have no place for collective bargaining, with its "plural sovereignty" of trade unions, unless the debates in a producers' parliament are fictitiously called collective bargaining. For, with them, it is the producers' representatives who are to be the social parliament which controls prices, wages, and taxes, hence without collective bargaining. Here they split. The Webbs would have collective bargaining with the labor unions, since it is the citizen-consumers only who are to be represented in their social parliament, and these would oppress the producers. Indeed, there is no place, say the Webbs, for a vocational, that is, producers' parliament, with sovereign powers, as the guildsmen propose (pp. 309-317). The Webbs concede that the several vocations can appropriately discuss and decide concerns peculiar to the vocation in question, but cannot, as producers, either separately or jointly, decide the concerns that are of common interest to the nation as a whole. The latter concerns belong to the citizen-consumers. Hence the need of collective bargaining to prevent these soulless consumers from exploiting the soulful producers.

Both the social parliament and the political parliament will be elected for fixed terms of years, by popular vote of citizen-consumers based on inhabitancy, and the Webbs have great faith in the British secret ballot, if once the electors are permitted to vote separately at different dates, on political and social issues, undisturbed by profits (pp. 402, 116, 120, 310).

It is embarrassing for socialists to be called upon to work out in detail their ultimate goal. They did not need to work it out when they were hopeless minorities. "Labor the producer of all wealth" and "dictatorship of the proletariat" were, at that time, good enough slogans for agitation. Likewise it must have been embarrassing to the Webbs, to whom the whole world of serious thinkers is deeply indebted for the solid work they have done in the history and philosophy of unionism, coöperation, and local government, to be called upon to make a guess at the ultimate goal. This book was called forth by the International Socialist Bureau in a request that each national body should submit a report on socialization and on the socialist constitu-

tion that shall be adopted by each nation when the socialists get control. The plan was submitted to the Fabian Society. It is an elaboration of the authoritative program of the British Labor Party published some time ago under the title *Labor and the New Social Order* and known to have been drawn up mainly by the Webbs, yet it is put forward as expressing only the Webbs' own opinions, and merely to start discussion (pp. v, vi). It does not pretend to be a scheme for any other country, for it has the great British virtue of building on Britain's own history, for Britain only. But it is called forth by the fact that socialists have come into power or near power and responsibility in Russia, Germany, France, Italy, without a program, and therefore they have split into groups running aimlessly into dictatorship of the proletariat at one extreme and subjection to capitalistic schemes at the other.

When an American remembers that in the British Isles are jammed together a population of more than 40,000,000, four fifths of them wage-earners, and all of rather homogeneous race, within an area no greater than the state of Wisconsin with its only two and one half million souls, half of them independent farmers' families and all recruited from a dozen nations or races, he may well hesitate to criticise a program designed only for the British Isles. Especially, he may not appreciate the consumers' coöperatives or the efficient civil service, of which we know mainly failures. He certainly will appreciate that "due process of law" which distinguishes the socialism of the Webbs, and indeed distinguishes that of the very first British socialist, William Thompson in 1824, from that of Karl Marx and Russia, in that it proposes to compensate both wage-earners and property-owners for the expropriation of their jobs and their property. The community will remember, the Webbs tell us, "that those on whom the Tower of Siloam fell were not greater sinners than other men. . . Accordingly, those British Socialists who have experience of administration, do not contemplate a method of expropriation essentially different from that which prevails today whenever a Local Authority takes over a local gas or water company, or acquires property for widening a street. Each owner should receive in compensation the fair market value of that of which he is compulsorily dispossessed, as between a willing buyer and a willing seller" (pp. 333, 334). The Webbs go further than this. "In the new social order aimed at by Socialists, as was proposed by John Stuart Mill three-quarters of a century ago, one of the first obligations to be recognized will be that of taking generously into consideration the claims of workers of every grade whose services are, in the public interest, superseded by new developments of technique" (p.

288). This due process of law means, of course, gradual socialization and not revolution.

We may also certainly appreciate the need of a separation of the political from the social constitution of government. Indeed the American states and nation have already gone very far in this separation, through strong appreciation of the inability of political legislatures to administer social and industrial affairs. Our congress and legislatures, in widely different degrees, have turned over the regulation or administration of schools, vocational education, railroads, public utilities, labor, health, insurance, prisons, hospitals, etc., to administrative boards and commissions, often independent of the legislatures and even elected separately by popular vote. The state of Wisconsin has at least forty of these specialized and quasi-independent social and industrial agencies. One can even imagine these regulative and administrative bodies coming together as a kind of "social parliament," and they are even doing so already through interdepartmental committees, and must necessarily come still closer together where their powers overlap, as in the case, for example, of boards regulating labor, health, education, insurance, and prices of public utility services. One can perceive also, that, with the progress of public ownership, the political government will not operate these utilities, as it does the post office, but will turn them over to administrative boards, as it does the schools, universities, prisons, and hospitals.

But to say that it will ever be possible to split sovereignty into "plural" sovereignties, each equal to the others, is to fly in the face of practical politics and also, we may be allowed to say, of human nature. That part of sovereignty which controls and monopolizes the use of violence will always be the sovereign. Every other so-called plural sovereignty will always be a *delegation* of power and not an *equal sharing* of power. To attempt, as is done by the Webbs and the guild socialists, to separate the assessment and collection of taxes from the use of violence could be dreamed of only by one who has been accustomed to see violence operate so smoothly under the control of the taxpayers, courts, and "political" parliaments that he imagines it is not there. Not "no taxation without representation," but "no violence without representation," has been the real struggle of those who have sought political power. Having this they have the power to fix taxes. The same will be far more the aim when, through public ownership, the "social" parliament proceeds to fix all prices, as well as taxes, and, in the last resort, to fix wages by compulsory arbitration, for these also must be backed by the power to call out the police and army in case of disobedience and revolt.

Even in the United States with its alleged divided sovereignty of the

federal government and the state governments, the states are really created by the federal government and granted power to use violence, which, in a real sense, is therefore delegated. Moreover, for the past sixty years, since the Civil War settled this question of plural sovereignty, the federal government has been resuming a large part of the powers of the states, and is authorized to resume all of them if necessary to preserve what it may deem to be a republican form of government.

To overlook this outcome is to overlook practical politics and its basis in human nature. Politicians may be expected to know where the ultimate decision resides. Capitalists and trade unionists may be expected to line up behind the politicians, and to reach out for control of that power of violence, and not reach for the mere agencies which exercise the shadow of power. If it turns out to be the social parliament of the Webbs where this power resides, no mere label over the doorway, "This is a Parliament of Citizen-Consumers—Producers not Admitted," will keep the trade unions or the capitalists from getting in. And I name the "capitalists," for although they are to be shut out when the goal is reached, they will have much to do with the gradual process of getting there. And even when we are there we are still to have the "vocational associations," and doubtless will have alliances of these associations, and therefore doubtless will have political parties of these alliances, each of them going after control of that ultimate smoothly regulated physical coercion that will fix taxes, prices, and wages. This means that probably the producers, the unions and the capitalists will not pay much attention to the "social parliament" or its collective bargaining, except by way of diverting attention, and will go after that "political parliament," as they now do, which controls the police, army, and navy.

But, however they get control of the real physical power of the nation or the state, they may well decide to delegate the *administration* of power to the social parliament, but never delegate the *policy* of determining what wages, prices, and taxes shall be. In which case we should have, exactly what we now have, legislatures or parliaments in control of physical power, but with a more or less elaborate set of delegated administrative boards, each busy with making the minor regulations that carry out the major policies of the political parliament. But the political parliament will be the sovereign one, and the sovereign one will be the one that controls the instruments of physical power. This would seem to be an elementary principle, and a starting point for all schemes of the ultimate goal, namely, that sovereignty is the monopoly of violence, else there is crime, anarchy, and civil war, and that this monopoly of violence is none other than a unified sov-

ereignty—a sovereignty that may delegate power to corporations, unions, coöperatives, and administrative boards, but never let these subsidiaries use violence in exercising their power.

With this outcome we need not question the soundness of the Webbs' economic program. It is sound enough, economically, whatever we may say politically, and eagerly to be obtained if possible, for it turns, as everybody knows respecting the programs of socialism, on balancing demand and supply, so as to avoid the great wastes and cycles of the competitive system. This is to be done by a grand super-trust, with its board of directors, the social parliament in this case, which is to combine the virtues of the single trust, multiplied by the balancing of all of the trusts in one supreme harmony. Everybody will be kept constantly employed, capitalists will not be permitted to construct factories and open up mines far in advance of demand, only to remain idle and lay off workers, through oversupply.

Likewise, when wages are fixed by collective bargaining it will be simple enough, through the accurate cost-keeping recommended by the Webbs, to put prices a little higher than costs, and thus to bring in whatever surplus is needed to build new capital out of the profits of the business. Thus there will be no trouble about borrowing and saving. The saving will be done, just as it is largely done now, merely by fixing prices higher than operating costs, and reinvesting the surplus by employing laborers on permanent construction, instead of paying the surplus out in dividends or by reducing prices or raising wages. And the social parliament will also provide for the future of the industries of the nation just as the capitalists now provide for the future of their business, not, however, by borrowing if their own profits are inadequate, but simply by transferring the surplus obtained in one industry to the capital account of another industry which is to be expanded.

This stabilizing and better proportioning of the factors of production is not only economically conceivable, but economically sound and much to be desired. The questions that arise are, Will the political parliament, controlling physical coercion and therefore becoming the object of struggle for power by sections of the country, by classes of producers and consumers, by militarists and pacifists, by alliances and counter-alliances, be able to do this stabilizing and proportioning when it fixes all prices and all wages as well as taxes? Will the distorting influence of a greatly augmented stake to be won by practical politics be less distorting than the influence of profits? Might not the desired stabilizing and better proportioning of factors be done measurably better if attention be not diverted towards the dubious goal of a super-trust and a plural sovereignty, but concentrated on a policy of

bringing pressure to bear on capitalists through unions and legislation, through taxation, compulsory unemployment insurance, the police power, and otherwise, thus inducing them to do it by their individual initiative, as has already been begun? Is it necessary to oust capitalism altogether, which is doing wonders through individual and corporate initiative, in order to oust the abuses of capitalism? The capitalist system is, indeed, in jeopardy on account of these miserable cycles of overwork and out-of-work, which reduce efficiency, impoverish labor, and arouse class struggle, and, if it cannot cure itself then something like government ownership may be preferable. However, the line of progress would seem to be, not towards a politically impossible goal on a misguided hypothesis of plural sovereignty and an inadequate appreciation of individual or corporate initiative, but along the line of a delegation of power to voluntary and obligatory agencies, regulating, as, is now done, the power of both unionism and capitalism, and even taking over private property as needed or where it proves itself incompetent, to be operated by administrative boards with delegated power. In any case the reliance must be, not on a plural sovereignty of equal sovereigns, but on that single sovereignty which is in position to lay down the rules of the game because it monopolizes the use of violence.

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COMMUNICATIONS

A Stabilized Dollar

In the December number of the *AMERICAN ECONOMIC REVIEW* Mr. C. C. Arbuthnot presents some interesting objections to Fisher's plan for a "stabilized dollar."¹ Arbuthnot arrives finally at the conclusion that Fisher's plan would not eliminate the alternate fluctuations in business from boom periods to depressions and that in the post-crisis period the "stabilized dollar" would produce more violent drops in prices than those to be experienced under our present monetary system. To demonstrate that the price *drops* would be more violent it becomes necessary for Arbuthnot to prove that under the Fisher plan the upward swings in prices would be almost as pronounced as those we would experience otherwise. For unless the price level rises high it can't drop far. In the argument over this point Arbuthnot is forced to tackle the old question as to whether credit expansion is the cause or the result of rising prices. He concludes that when bank credit is employed not for investment purposes but "to assist in the purchase and sale of marketable goods" and "takes the form of short-time notes which are to be paid from the receipts from the sold goods . . . [the] extension of credit is accompanied almost simultaneously by an offer in the market of salable commodities, the equilibrium between supply and demand is not seriously disturbed and the extension of credit has no lifting influence on the general level of prices."² Consequently Fisher must be in error in insisting that inflation explains such rises in prices as could be modified by the "stabilized dollar."

Now the writer conceives that this analysis involves certain errors; that the fact of the speedy emergence of the goods on the market is of no great pertinence in explaining the relation between expanding grants of commercial credit and rising prices. As the writer has pointed out elsewhere³ the effect of increasing commercial credits on prices is largely a matter of the industrial circumstances of the time. In some situations easy credit must be followed by rising prices; in other situations it may not be so followed; but in no situation is the quick appearance of the goods on the market the sole criterion as to the effect on prices. If the writer's conception is correct in this matter the attacks on the Fisher propaganda must be of a different sort.

Let us assume that we are in the midst of a boom period. Let us assume that manufacturers in general have pushed production as far as can be without increasing the expenses per unit of output. Let us assume that additional good labor is not easily available, and that employment of further labor is expensive, if for no other reason, because the best labor was absorbed first. Certain necessary materials can be obtained in additional quantities only by bidding against manufacturers in other industries who are also behind in their orders. Finally, it may be that extra-production will necessitate enlargement of buildings, changes in machinery, or other expensive alterations.

Under these circumstances our retailers, jobbers, or wholesalers are informed by the banks that they will be treated liberally in their requests

¹ See C. C. Arbuthnot, "A Stabilized Dollar Would Produce Violent Changes in Periods of Falling Prices," *AMERICAN ECONOMIC REVIEW*, vol. X (December, 1930), pp. 776-784.

² *Ibid.*, pp. 779-780.

³ Cf. H. L. Reed, "Work of the Federal Reserve Board," *Journal of Political Economy*, January, 1921.

for commercial credit. They are simply given large lines of credit. What must be the effect to retailer *A* of liberal extensions of credit lines to competing retailers, *B*, *C*, and *D*? Obviously it is likely to encourage lively bidding between the retailers for the limited quantity of available goods. Taking advantage of this situation the manufacturers shove up prices, and all down the line from producer to consumer this advance is passed along. With the same easy credits, and difficulties of expanding inexpensively, in other fields of industry, there is gradually diffused throughout the community the buying power in terms of dollars, in anticipation of which retailers bid for goods and fix their prices. Even though the goods are not withheld indefinitely from the market they make their appearance under changed conditions of supply and demand.

Clearly the situation would have been different if manufacturers had known that retailers could obtain commercial credit only with difficulty. There would not then have been the same opportunity to play off one buyer against another, and the market could not have been made so easily a sellers' market. Why then assert that banks with their credit offers did not help to create the rise in prices? Explanation of this common mistake is undoubtedly to be found in the fact that in each individual transaction economists have customarily focused attention upon the credit finally granted rather than the credit which competitors of the successful bidder for the goods could have had. If *A* gets the goods instead of *B*, *C*, or *D* it appears that the amount *A* borrows depends upon the height of prices rather than the reverse. But, though the prices may have been fixed before credit is called into being, the prices *A* had to pay and the volume of bank credit actually created for *A* was influenced by the amount of credit *B*, *C*, *D*, or others could have got had they been the successful bidders for the goods. If this be true the adjusting of the volume of the circulating media to the level of prices, as under the Fisher plan, might aid in restraining rapid rises by limiting the amount of credit *available* to competing retailers.⁴ In other words, Arbuthnot's objection is due to his inability to see that the amount of commercial credit available for the prospective borrower determines, among other considerations, the amount finally extended to the actual borrower.

Of course under differing industrial conditions liberal credit offers need not have the same effects. Suppose the situation is one in which additional labor and materials are easily available, that new orders need not necessitate enlargements of plants or changes in equipment. Larger production may create possibilities of economy in the amount of overhead or fixed charges allocated to each unit of output. If, under these circumstances, retailers are stimulated to a reasonable extent by information that the required credit will be forthcoming, prices are not necessarily disturbed. As a matter of fact they may even be lowered in that the retailers' orders may make possible production under conditions of greater efficiency. It may no longer be a matter of setting up greater dollar competition for the limited quantity of goods but rather using more dollars to effect the transfer of more goods. Easy and abundant credit may thus affect either the level of prices or the volume of production or both. Undoubtedly the situations in which prices and production are both affected outnumber the cases in which abundant credit works upon the one alone. But as to which is most in-

⁴ Particularly in times when bank reserves are low.

fluenced an a priori answer is not possible. It all depends on the industrial situation.

If the foregoing be correct, Arbuthnot's objections fall. But Fisher's plan would then be subject to attack on the following grounds: (a) Production rather than price statistics should determine the need for a change in the volume of dollars. (b) Because of the all importance of bank credit in our media of exchange Fisher's efforts should be confined to endeavors to influence the policy of our bankers and particularly the Federal Reserve Board rather than to attempt the more difficult and less promising task of securing the assent of a far larger number of minds to what appears to be a radical change in our monetary system.

In regard to the first we must recall that Fisher would adjust the volume of the circulating media as prices rise or fall. Suppose, as is undoubtedly frequently the situation, that production increases cannot be effected without easier credit which if granted may bring about some rise in prices. In this situation should we not take the position that price stability is primarily a consideration of distributive justice and should be subordinated to the requirements of rendering as large as possible the total volume of production? Should we not first of all adapt our credit policy to production needs and then consider the measures necessary for securing fair distribution?

In the second place, under certain favoring circumstances such as plentiful reserves, the banks could easily nullify any effect created by the change in the theoretical weight of the dollar. Unless our banking administration can be taught a different price theory than any they have thus far enunciated clearly the possibilities of a "stabilized dollar" are limited. But if bankers can be induced to limit their credit grants to the requirements of productive efficiency we need not worry about such matters as the invention of new processes for mining gold or the importation of gold from abroad. Despite great difficulties will it not be easier to educate our bankers, and having educated them to make use of existing machinery, than to attempt to convince the far larger class whose assent to the "stabilized dollar" would be necessary? At any rate it will not be necessary to argue for a change which will appear violently to alter our present monetary system.

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Integration in Marketing

In the September number of this REVIEW Mr. Lewis H. Haney analyzes the reasons for integration in marketing (which amounts to what is commonly referred to as elimination of middlemen) and attempts to answer the question whether the tendency in this direction is in the public benefit.¹ His general conclusion is that, although integration may be socially desirable within certain limits, there exists "no prima facie case for integration in marketing." Broadly speaking, the conclusions uphold the orthodox system of marketing, especially where the wholesale grocer is concerned, and appear to find little justification for such innovations as the chain store, mail-order house, coöperative buying exchanges, or direct sale from manufacturer to retailer.

¹ "Integration in Marketing," by Lewis H. Haney, *AMERICAN ECONOMIC REVIEW*, vol. X (Sept., 1920), p. 528.

He begins with the assumption that recent departures from the "old smooth channel" through the wholesaler result in "a most unfortunate and wasteful amount of duplication and friction"; and seems to think that the traditional method should be left undisturbed rather than that we run the risk of making progress by trying to find new and better methods of marketing. His principal object is apparently to justify the wholesale grocer as against other marketing agencies; and the unfounded criticisms against the packing industry which have resulted impel the present writer to point out some of the mistakes in Mr. Haney's article.

Before taking up these points, however, it may be well to name two or three serious defects in Mr. Haney's argument. He enumerates eight "economic forces tending to integration in marketing." He has omitted what is perhaps the most important reason of all, and that is the perishability of products.² This is the main reason why the packing industry has to "do its own jobbing" and why it cannot rely on outside dealers. The president of the National Biscuit Company told me in person that the products of the National Biscuit Company too often got stale in the hands of the wholesale grocers and did not reach retailers in the best condition, and that this was the principal reason why his company had been forced to sell direct to retailers. Also the marketing of cheese has been taken over largely by the meat packer because the wholesale grocer did not have the facilities for handling this perishable product efficiently.

Another very serious error appears on page 540, where Mr. Haney attempts to prove that the cost of marketing groceries through the mail-order house is very similar to the cost of marketing through the wholesale and retail grocer. He has overlooked the fundamental fact that the different departments of a mail-order house have different costs of doing business. If the expense of the entire business of a mail-order house is approximately 22 per cent, the expenses of the grocery department would be considerably less than that—probably not more than 15 or 16 per cent.³ This would show a decided advantage for the mail-order house as compared with the jobber-retailer route, and Mr. Haney's comparison is obviously unsound.

One other merchandising fallacy is apparent when Mr. Haney decries the "inequality in margins of profit" on different items handled by wholesalers and retailers. There is room for argument on this point in so far as the inequality in margins results from the pushing of "leaders," but to complain of the customary variation in margins as "not a healthful condition" completely ignores the reason for the low margin on sugar, for example, as compared with the high margin on imported delicacies and perishable products. The point is that the cost of doing business varies for different individual articles, according to the rapidity of turnover of these individual articles, and the amount of salesmanship necessary in their sale.⁴ If this

² It might be argued that this question of perishability is covered in paragraph 6, where "special service" is given as one of the reasons for integration. Mr. Haney, however, apparently did not have this in mind, because he gave as examples "such machinery as typewriters and phonographs" (p. 531). If he did have perishability in mind, he certainly should have mentioned it.

³ The writer has been informed by an official of one of the large Chicago mail-order houses that the expenses of the grocery department are substantially less than the cost of operating the whole business.

⁴ See my article entitled "The Right Selling Price," *System*, May, 1918.

inequality appears to be increased by the operation of chain-stores, department stores, mail-order houses, etc., as Mr. Haney claims is the case, this merely means that in these forms of marketing agencies there is a better adjustment of margins on individual products to actual merchandising costs—something to be encouraged rather than discouraged.

Taking up the specific references to the packing industry, we find that one of the principal reasons given for the tendency toward integration is the concentration of manufacturing in the hands of a few large producers. With this general proposition we cannot disagree, but in developing his thought Mr. Haney says that this tendency may be due to the possession of "large surplus earnings," especially when there is a desire to "insure a stable outlet" or to "maintain prices to the consumer"; or that the tendency may also arise from a desire to introduce "some new and expensive method of marketing." "All of these conditions," he says, "may be found in the expansion of the large meat packers and oil refiners into the marketing field" (page 529).

One might infer from this discussion that the packers had extended their marketing functions in order to find some means of disposing of surplus earnings for which they could find no other use. This is an idea advanced by the Federal Trade Commission in its report and by opponents of the packing industry that have appeared before congressional committees in Washington. It is a sensational suggestion utterly without foundation. In so far as the packers have had "surplus earnings" to reinvest in their businesses, they have been governed entirely by the economic need of extending facilities and developing means for financing operations; they have not had to cast about to find some way to invest such earnings, and absolutely no evidence has been produced to show that such is the case. As for a desire to insure a "suitable outlet," this is true of the packing industry and accounts for one reason why it has been found necessary to market through their own branch selling houses rather than through outside dealers. As for the desire to "maintain prices" to the consumer, this has not been a factor with the packing industry. No attempt at price maintenance has been made or would be feasible with reference to the great bulk of products distributed by the packers, because these products are perishable, they are sold in bulk, they are of varying grades and qualities, and most of them (such as beef) cannot be sold to the consumer under the packer's label. There are a few advertised specialties, such as soap, on which attempts to have retailers maintain prices—a practice very common in other industries—may have been made; but this has been of no significance whatever in the packing industry.

As for the "need of introducing some new and expensive method of marketing," Mr. Haney has adopted a wording which creates a wrong impression. The large packers had to establish their own wholesale selling outlets in Eastern markets just as soon as they began preparing dressed meats in the Middle West. This method was "new" at the time, but it has never appeared to be an expensive method of marketing as compared with the cost of marketing by other means.

On this same point it is said that this centralization of marketing tends to increase the field of monopoly, eliminate competition among independent wholesalers, increase the average spread between the factory price and retail price, and results in "economic waste through the encouragement of overgrown manufacturing units and excessive advertising campaigns." The

meat packers are cited as an example. In making this point Mr. Haney follows the time-worn assumption that there is a monopoly in the packing industry; he assumes that the doing away with "independent wholesalers" tends toward monopoly and increases the spread between factory price and the retailer. Neither of these assumptions is or can be borne out by positive evidence. As for "economic waste" resulting from "overgrown manufacturing units," Mr. Haney again makes an assumption that cannot be proved. The company which the writer represents has twenty-five manufacturing plants in the United States, distributed according to location of livestock producing sections, consuming centers, and also with respect to the proper size of manufacturing units.

This brings us to the question of "excessive advertising campaigns." Mr. Haney's remarks (pp. 530, 532) are suggestive of the views of many laymen and of many economists. Where would he draw the line between reasonable and excessive advertising? Surely not by adopting an absolute figure; he would consider the relation between advertising expenditure and total sales. The writer made a study of advertising expenditures of various concerns while he was in academic work, and found that the average advertising expenditure for a large number of advertising manufacturers amounted to something over five per cent of their sales.⁵ Swift and Company, one of the largest advertisers in the country, spent in 1919 less than one fourth of one per cent of its sales, including both product and institutional advertising. Who shall say that this money was not well spent? Advertising is merely an economical way of selling, just as the use of a machine is an economical method of fabricating products. The public pays less for the service performed than it would pay if some other method of distribution of fabrication were used. Even institutional advertising could be defended on the ground of economy, at least economy in the long run. Wilful misrepresentation of an industry, with the resulting prejudice that is built up in the minds of many people, results in an ill will (instead of a good will). Such an ill will makes it harder to sell products, makes it easy for federal and state governments to pass harmful and uneconomic laws, and threatens the very stability of the business. If advertising designed to overcome such ill will should fail of its purpose, then it would have been wasted; if it succeeds, the benefits both to the corporation and to the public cannot be measured in dollars and cents.

Mr. Haney points out that the packers' marketing organizations duplicate, step by step, the regular distributive system. This is of course true, in that the same functions have to be performed whether under one ownership or a succession of different ownerships. But Mr. Haney's statement that the "packers' method tends to be less economical than the regular method because of the dependence upon the hired man, and because of the enormous overhead," is not based on the facts in the case. Consider the packer, for example, and the wholesale grocer. Although not directly comparable, the cost of doing business through the packer's branch house is less than 4 per cent of sales; the cost of doing business through the wholesale grocer is from 7 or 8 to 10 per cent of sales. Even the Federal Trade Commission admits that the advantage is with the packer in this respect.⁶

⁵ See "The Economics of Advertising," *Printers' Ink*, July 11, 1918.

⁶ See *Report of the Federal Trade Commission on The Meat Packing Industry*, part IV, pp. 49 to 53. After pointing out the difficulties of making an exact com-

The packer's whole expense and profit for manufacturing and selling animal products and by-products is about 15 per cent of sales, and this includes buying of animals, slaughtering, paying freight to distant markets, operating branch selling houses with refrigeration facilities, the paying of salesmen, accounting forces, etc., and the cost of delivery to retailers. Compare this with the wholesale grocer's margin of about 11 or 12 per cent, which covers nothing but the merchandising function (although in some cases there is a little incidental manufacturing). This is not a reflection on the efficiency of wholesale grocers, whose business is very different from that of the packers. But is there any method whereby the services that the packers perform can be accomplished at any lower expense than under the present organization?

Mr. Haney attempts to clinch his argument against the large-scale, integrated marketing system of the packer by saying that many small packers thrive without any such marketing organization. It seems curious that this point should be raised when Mr. Haney has every reason to know that the large packers and the small packers are not comparable. This was explained by the writer at the meeting of the American Economic Association in December, 1919. The small packer does a local business; he cannot possibly market efficiently (especially fresh meats) in distant markets. The large packer is absolutely essential to market the surplus livestock products of the West in the large consuming centers of the East. The marketing organization of the large packer, therefore, is based on absolute necessity and is not at all comparable with that of the small packer.

This same failure to recognize lack of comparability between large and small units, because of the differences in services performed, is evident in the conclusion (p. 545) that large-scale operations in the wholesale grocery trade are not based upon economic efficiency. The large-scale wholesaler cannot be compared with the small local jobber for the reason that he performs a different and more important service. For example, he usually develops a line of standardized canned goods under his own label—an important service which the small local jobber cannot hope to perform.

Finally, the writer cannot help protesting against Mr. Haney's vague use of relative terms. His expression "excessive advertising" is anything but enlightening, and only tends to confuse the mind on an important economic problem on which there should be clear thinking. His references to "public benefit" and to "wasteful" methods of competition, etc., also indicate a cloudy state of mind, and only tend to inflame certain economic prejudices and suspicions, without advancing positive evidence, and without proceeding from a basis of sound definition. The same vagueness is apparent in the last three or four pages of conclusions, and in spite of a few positive statements, the reader really wonders just how far Mr. Haney would go in defending the wholesale grocer as against such developments as the chain store and the mail-order house, or just when he thinks that "public benefit" results from integrated marketing.

L. D. H. WELD.

parison, and qualifying its conclusion by saying that greater efficiency in handling non-meat products is not established, the Federal Trade Commission says: "After all allowances are made, however, the facts if fully known might well show that on the average a given volume of sales can be made at less expense by the packer than by the wholesale grocer (p. 53)."

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

The Flow of Value. By LOGAN GRANT MCPHERSON. (New York: The Century Company. 1919. Pp. xvi, 473.)

In *The Flow of Value* Mr. McPherson has attempted "to set forth in general and in broad outlines the sequence of cause and effect in the determination of prices." His vehicle is a textbook which, although an independent treatise, is "in a way" a companion volume to his *How the World Makes its Living*. His immediate object is to throw light upon the important questions "concerning the determination of wages, of prices, and the acquisition and tenure of property." His more ulterior purpose is to illuminate the larger problems of "changes in the institutions and practices of the past" which are necessary to enable the community "to coördinate" its efforts "for the common good." Or, more briefly, he considers "the flow of value" (or is it the system of prices?) in its relation to "economic reconstruction."

To this end Mr. McPherson points out the nature of human effort and human want, shows how utilities come into existence, how these give values to the articles embodying them, and how these values are articulated into a comprehensive system of prices. In a community which he hypothetically builds up he traces the "flow of value" from the most finished of consumers' goods to the most primary elements of production. Since his society is a developing one he introduces machinery and traces the results of this technical change upon the system of prices. He notes particularly the functions which wages and profits perform in the economic order. His regard for the relevancy of values leads him to a consideration of the nature of money and its rôle in price determination. Finally, after a summary of his subject-matter from another angle, he concludes with a discussion of "sound minds in sound bodies," which is the human end which he would have the industrial system serve.

The method followed by the author has all the traditions of neo-classical theory back of it. Our schools of law have long bent their efforts upon teaching students to think legally. So our teachers of theory have made thinking economically their principal object. In seeking to extract the whole truth from a few simple premises and in keeping his reader away from the wilderness of modern economic fact Mr. McPherson follows them. Like them he builds up his argument by deduction; like them he arrives at statements that approximate actuality by adding his complicating factors one at a time; and like them the truths he garners represent tendencies rather than actual conditions. Like them he aims to substitute simplicity of statement for be-

wildering variety, and is led to reduce the miscellaneous assortment of goods, services, and wants, which are the materials of the market problem, to "units of force" and "units of wants." In terms of "man-hours" and "man-units" baffling appraisals are reduced to manageable problems. The student who masters his pages will be sadly put to it to escape thinking economically.

In method, in detail, and in conclusion the volume will provoke approval and criticism from many economic camps. The classicists will approve of his hypothetical method, but will look askance at an argument which introduces "dynamic" factors into the value problem. The statisticians will approve the emphasis upon price and quantitative measurement, but will see in his reduction of his terms to simple units an encroachment upon their vested interests. The welfare economists will approve the human ends which he would make industry serve, but will quarrel with him over assumptions, as, for example, his hypothesis of a living wage as a condition essential to the utilization of labor. Even the protestants, who will see no good in so unreal a method, will welcome the wider basis in assumption which underlie his value theory. But such criticisms are inevitable. So long as we will differ about the very nature of our subject, no book can give us what all of us would like to have.

The essential thing is that the author has come through these traditional and hypothetical exercises without losing his head. He is not won over to the belief that ours is a natural and automatic order, that the system of prices is a perfect regulator of production and consumption, and that under the guidance of market values we get out of our resources all they have to give. On the contrary he realizes that however prices may be made, in competitive markets, by the few who control large industries, or by official "price-fixers," human judgments lie at their bases, and that the real problem is to make them as intelligent, as enlightened, and as little prone to error as possible. He sees a possibility for a much better coördination of economic processes than that furnished by the current system of prices. In fact "an administrative and executive board constituted of men of proved integrity, of large experience, and broad grasp, can obtain the widest information from time to time as to the probable demands for the products . . . and therefore can make the provisions which will more closely approximate the demand." Again, "an administrative board, composed of representatives of boards administering each great division of industry and commerce, could maintain that relativity between the production of substances of different kinds, their transformation, and the proportions in which final utilities would be produced . . . that would result in a minimum of overproduction or of underproduction."

In this conception of the instrumental character of the system of prices Mr. McPherson's greatest service lies. There was a time when economists were lost in delight at their discovery of how adequately changing prices adjusted demand and supply, and through them production and consumption, to each other. They failed to see in the constant use of such a mechanism with the wide fluctuations in prices which it entailed evidence of great imperfections in the coördination of economic processes. Mr. McPherson is right in regarding this question of organization as the great problem of "reconstruction." He is to be thanked for restating the problem in terms of the human judgments which make prices and of the factors of industrial organization which condition them. And, most important of all, he is to be congratulated upon coming to so clear an appreciation of his problem through a traditional exercise in value theory.

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Some Aspects of the Inequality of Incomes in Modern Communities.

By HUGH DALTON. (New York: E. P. Dutton & Co. 1920. Pp. 360.)

The book begins with a painstaking discussion of the views of prominent economists with regard to the distribution of incomes among families and especially of the effect of inheritance in producing inequality. This summary of the ideas of others is followed by an analysis from the author's own standpoint of the various forces which tend to give rise to inequality in income and of all possible devices which may be utilized to make incomes more equal.

Professor Dalton considers that very little argument is necessary to show that the present distribution of income is too unequal. However, he concludes that absolute equality would be absurd and leans toward a policy of distributing income somewhat more in proportion to the needs therefor than is accomplished by the present system. He everywhere recognizes, however, the fact that society cannot afford to sacrifice production in order to improve distribution. The problem, as he sees it, is how to lessen inequality in incomes without materially reducing the output of industry.

A few seeming inaccuracies and oversights in the book are out of harmony with the general carefulness of the work. On page 51, for example, he quotes Marshall approvingly as saying that Ricardo "was inclined to envisage mankind as wholly composed of city men," and then immediately discusses Ricardo's propositions concerning agriculture! The statement is made on page 281 that the custom of allowing the living to inherit the property of the dead "is a very curious fact," but

he fails to show anything curious about it. In his discussion of why women are paid less than men, he entirely overlooks the important circumstance that women commonly expect their calling to be terminated soon by marriage, and hence it is not worth while for the employer to train them for positions of great responsibility in his business.

On page 178, occurs the error, common to most economists, of assuming that interest is a payment for the services of "capital goods" rather than for a money loan. In the first chapter of part IV, natural wealth gaining ability and merit are tacitly assumed to be identical, which seems to imply a very narrow definition for the idea of "merit."

The preceding are minor points, but, in the opinion of the reviewer, other more fundamental errors occur which tend to weaken Professor Dalton's line of reasoning. He states on page 48, for example, that the rate of increase of agricultural production "has blown . . . [Malthus'] thesis into thin air, and exhibited him, not indeed as a moral delinquent, but as a very inadequate economist." As a matter of fact, it appears probable that Malthus' fundamental mathematical propositions can be shown to have held even during that rapid spread of population into comparatively unoccupied regions, which characterized the last century, and the most cursory thought convinces one that the fixed area of the earth's surface necessarily makes such an expansion into new territory a transitory rather than a permanent phenomenon. As for improvements in agriculture, a circumstance to which Professor Dalton attaches considerable importance, it can scarcely be said that they have thus far succeeded in affecting any startling increases in yields per acre.

Furthermore, Professor Dalton's assumption that the western world has progressed beyond all danger from the disproportionately rapid multiplication of the most inefficient types of mankind is delightfully optimistic but seems to contradict the statistical evidence presented by many investigators of the actual facts concerning birth rates in the different strata of society.

Throughout the entire book runs an undercurrent of assumption that all persons are actually endowed by nature with equal talents and ability and that, therefore, unequal advantages are wholly responsible for the differences that we observe in humankind. For instance, on page 258, he speaks of the belief that some workers, even with proper training, would not be able to fill certain occupations, as "hypothetical." Is it not strange, however, that human beings alone, of all the plant and animal kingdom, should show this practical identity of natural gifts? His conclusion that educational opportunities for all would tend to lessen differences in wages seems to be belied by conditions in

the United States where free schools have long been available to all, but where very wide differentials in wages and salaries still prevail.

The correctness of the assumption that much greater equality of wages than now exists would be desirable is nowhere demonstrated and the proposition appears to be one of very doubtful validity. Under such circumstances, what incentive would a worker have to "make good"?

While, for the reasons just stated, the reviewer believes that Professor Dalton has gone somewhat too far in his desire for greater equality of incomes, there can be little doubt of the fact that he has done a great service to students in this field by gathering together the material on the subject and presenting a logical discussion of the whole philosophy of distribution of income. The practical recommendations which he makes for modifications of inheritance laws are mainly those previously suggested by Professor Ely and Rignano in their respective writings and are distinctly moderate and logical. These propositions include the abolition of the intestate succession of distant relatives and the partial or total extinction of the right to bequeath inherited property. The last-mentioned limitation, aimed at the abolition of the class known as "the idle rich," certainly contains far-reaching possibilities and has much to commend it. Professor Dalton points out, however, the serious danger, overlooked by most writers on the subject, that heavy inheritance taxation is likely to dissipate the accumulations of wealth so essential to abundant production. He wisely suggests that with any measure causing the state to take over any considerable share of estates should go suitable legal safeguards so drafted as to prevent material diminution in our aggregations of industrial equipment.

The book throughout is thoroughly scientific and is characterized by abundant references and a logical style of presentation.

WILLFORD I. KING.

The Principles of Sociology. By EDWARD ALSWORTH ROSS. (New York: The Century Company. 1920. Pp. xviii, 708.)

Those who have followed Professor Ross's series of articles in recent issues of the *American Journal of Sociology*, and have looked forward to the publication of the volume which they foreshadowed, will not be disappointed in the book itself. In fact, Professor Ross's analyses are even more convincing and illuminating when combined in an integrated and connected system than they were as scattered monographs.

The book is divided into five parts: The Social Population, Social Forces, Social Processes, Social Products, Sociological Principles. The section on Social Processes is by far the most extensive, occupying 480 pages out of a total of 693 pages of reading matter. It is also

the most important. Here the author is at his best. Professor Ross's unique qualifications are those of an observer, and interpreter of what he observes. He has the gift of discerning the real nature of the doings of men and women and children, and through this discernment of showing the relationship between the different departments of human activity, and of reducing the infinite varieties of acts and behavior to certain definite types and categories. Professor Ross is what the character analysts would undoubtedly describe as the dynamic type of man. Accordingly, what interests him most is society as a "going concern." And his ability to see what is going on enables him to see what the results of the "goings on" will be, and to point out what changes in human activity are required if certain desired ends are to be accomplished. His practical conclusions are therefore almost invariably sound, sensible, and positive. This is most fortunate, since he unreservedly commits himself to the telic conception of sociology, and admits that his "over-mastering purpose" is "to better human relations."

The author distinguishes thirty-eight different social processes, to each of which he gives an appropriate name. These are not all of equal weight, nor does their importance as commonly recognized correspond with the amount of space given them. Thus "association" which, in the conception of many sociologists, includes practically the whole subject-matter of the science, occupies only about twice as many pages as "professionalization," and "class struggle" stands on a par with "ossification." This is, of course, due partly to the use of words in a sense somewhat different from the commonly accepted one, but also to the obvious impossibility of giving a clear exposition of a concept in the exact number of words which its relative importance would indicate. In fact, it may require more space to clarify an unfamiliar idea than one which, just because of its importance, is more widely known.

The gross result of this section is to leave upon the reader the impression of an undreamed of orderliness and system in the doings of human beings, a system not the result of a deliberate, pre-arranged organization, but of the working out of problems by innumerable individuals who are fundamentally alike in their essential qualities, and therefore tend to follow certain well defined channels of conduct. The science of society looms large not only as a possibility but as an actuality in the light of such a discussion.

The book opens with a brief analysis of the make-up of the social population, taking into account number, sex, age, urban and rural distribution, growth of population, etc. This is followed by an analysis of the social forces. In recognizing the instincts as the fundamental social forces the author is in close accord with the best modern thought. His exposition of these original forces, however, as well as his treat-

ment of the derivative forces, leaves considerable to be desired. The reader does not quite feel that he has had his feet planted solidly on the substructure of natural forces and natural law upon which the edifice of sociology must ultimately rest if it is to withstand all the winds and floods that beat upon it.

Somewhat the same feeling is engendered by the closing sections on social products and sociological principles. Thus it is surprising to find the recreation center included in a brief list of institutions, but the church omitted; industry included, but commerce and transportation—certainly two of the most distinct social products—omitted. There is also much reason to question the author's position that the extension of social control over industry is a matter which should be left to the economists to decide. Rather is it just at such points as this that the dividing line between economics and sociology is most clearly defined. Similarly, in the discussion of sociological principles, it is strange to find no mention of that great principle, by whatever name it may be called, by which men's recognition of the interests and welfare of others as factors in conduct is becoming so continually extended.

To cite these shortcomings, however, is merely to illustrate the fact that the science of sociology, as at present developed, is much too diffuse to be adequately covered in one work—not to say one volume—by any man, however wide the scope of his mind. To have produced an exposition of one major department, such as Professor Ross has given us in his *Social Processes*, is glory enough for one man.

It hardly need be said that the book is highly readable, crammed with unique and picturesque incidents and cases, all pertinently attached as illustrations to some generalization. The author's powers of observation and wide acquaintance with foreign lands have enabled him to provide a storehouse of invaluable citations for others working in similar fields.

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In the words of the author, this volume endeavors "to examine and present in as concise a form as possible the principles and rules which guided and regulated men in their economic and social relations during the period known as the Middle Ages." It is not very many years since the announcement of such a book would have been received by many economists with polite indifference, if not with positive irritation. If they took notice of the work at all they would have asked, "What possible interest can medieval economic notions have for us? Can anything good come out of the Middle Ages?" However, the researches of such economic historians as Cunningham and Ashley have rendered that attitude henceforth impossible in anyone who desires to be or to pass for a scholar. Students of economic history now realize that the ethical and economic doctrines and institutions of the Middle Ages constituted a distinct and

fairly coherent system which endured for several centuries, and which produced a large and important body of results.

The author quotes with approval Ashley's statement that the study of medieval economics is necessary as an introduction to later theories, but he insists that its chief value is in helping toward a solution of present-day problems. This is because of the emphasis which the medieval writers placed upon the ethical element in economic transactions. Accordingly, the author attempts to set forth fully the ethical teaching of the canonists and theologians on the right of property, the exchange of property and the lending of money, and to expound the fundamental principles that underlay the specific teaching on all these subjects. His exposition contains nothing new. According to some reviewers, the book has evidently been constructed entirely upon the basis of secondary sources. Whether this criticism is entirely accurate or fair, the work is of great value, inasmuch as it presents for the first time in English the entire body of medieval economic teaching between the covers of a single volume, and in a fundamental and systematic way.

Undoubtedly the critical portion of the book is unsatisfactory. For example, when the author tries to reconcile the medieval condemnation of interest on loans with the medieval approval of interest on capital instruments, his insistence upon the fact that the money loaned was regarded as sold to the borrower, is hardly a conclusive explanation. In the first place, the conception of the loan as a sale was artificial and technical rather than realistic and natural. In the second place, if a loan was a sale in the Middle Ages it is a sale today, and the product or increase which the borrower (or buyer) obtains through exchanging the money for productive capital even now belongs entirely to the borrower; therefore, the lender is guilty of extortion when he requires a part at least of this product in the form of interest. Nor is the difficulty squarely met by recourse to the title of *lucrum cessans*. The simpler and more effective explanation is that in the medieval period the great majority of loans were used for the purchase either of consumption goods or of the simple tools needed by the artisan. In either case, the exaction of interest was looked upon as a species of extortion, as an unjust advantage taken of the weak by the strong.

JOHN A. RYAN.

PARK, J. H. *The English reform bill of 1867*. Columbia University studies in history, economics and public law, XCIII, 1. (New York: Longmans. 1920. Pp. 285. \$3.)

PRATO, G. *Fatti e dottrine economiche alla vigilia del 1848: L'Associazione agraria subalpina e Camillo Cavour*. (Turin: Tip S. Giuseppe degli Artigianelli. 1920. Pp. 352.)

This book makes a valuable contribution to Italian economic history of the nineteenth century. The agricultural organization whose development during the significant years of the forties it details had among its members many men already prominent, or soon to become prominent, in the affairs of Italy; Cavour himself here advanced and tested his ideas on many subjects and had the skirmishes that preceded his important battles. Ostensibly agricultural in the pivot of its interest, the society really reflected the sum of the larger economic interests of Piedmont in its day. Agricultural technique and instruction, forestry, credit, various sorts of

insurance, roads and railroads, trade and markets, tariff systems, problems of poverty and of labor, social peace and radical theories, these were studied by men familiar with the reasoning of economists, with the older economic conditions, and with contemporary needs and demands. Neither the social and political history of 1848 in Italy nor the subsequent attitude of Cavour upon many public questions can be understood without acquaintance with this significant episode, so skillfully and so broadly treated in Prato's volume.
R. F. F.

QUENTIN-BAUCHART, P. *La crise sociale de 1848; les origines et la révolution de février.* (Paris: Hachette. 1920. Pp. 326.)

ROWE, L. S. *Early effects of the war upon the finance, commerce, and industry of Peru.* Carnegie Endowment of International Peace. Division of Economics. Preliminary economic studies of the war, no. 17. (New York: Oxford Univ. Press. 1920. Pp. v, 60.)

SAIT, E. M. *Government and politics of France.* (Yonkers-on-Hudson, N. Y.: World Book Co. 1920. Pp. xv, 478.)

Contains descriptive matter on budgets, taxation, money bills, socialists, and radical movements.

SCHÜLER, H. *Brasilien. Ein Land der Zukunft.* Fourth edition, enlarged. (Berlin: Deutsche Verlagsanstalt. 1919. Pp. 232. 15 M.)

SCOTT, J. B. *The United States of America: a study in international organization.* (New York: Oxford Univ. Press. 1920. Pp. xix, 605.)

STARKEY, G. W. *Maine, its history, resources and government.* (Boston: Silver, Burdett. 1920. Pp. x, 249.)

SWEETSER, A. *The league of nations at work.* (New York: Macmillan. 1920. Pp. vii, 215. \$1.75.)

Two chapters discuss "The International Labor Organization" and "Economic Coöperation."

TSOUDEROS. *Le relèvement économique de la Grèce.* (Paris: Berger-Levrault. 1920.)

TUCKER, I. ST. J. *A history of imperialism.* (New York: Rand School of Social Science. 1920. Pp. 404. \$2.25.)

TURNER, F. J. *The frontier in American history.* (New York: Holt. 1920. \$2.50.)

WALL, W. W. *Labour, capital and finance.* (London: Pitman. 1920. 3s. 6d.)

WENDEL, H. C. M. *Evolution of industrial freedom in Prussia 1845-1849.* (New York: New York Univ. Press. 1920.)

WILLIAM, M. *The social interpretation of history. A refutation of the Marxian economic interpretation of history.* (Brooklyn, N. Y.: Author, 87 Norman Ave. 1920. Pp. 222.)

WOOD, G. A. *William Shirley, Governor of Massachusetts, 1741-1756: a history.* Vol. I. Columbia University studies in history, economics and public law, vol. XCII. (New York: Longmans. 1920. Pp. 433. \$4.50.)

Chapter 8 is entitled "Reforms, Chiefly Economic."

WUNDERLICH, F. *Hugo Münsterbergs Bedeutung für die Nationalökonomie.* (Jena: Fischer. 1920. Pp. vii, 104. 7.50 M.)

Mexico today. As seen by our representative on a hurried trip completed October 30, 1920. (New York: American Exchange National Bank. 1920. Pp. 25.)

Report on the commercial, industrial, and financial situation of Japan, 1914 to 1919. (London: H. M. Stationery Office. 1920.)

Social and industrial conditions in the Germany of today. The Annals, vol. XCII. (Philadelphia: Am. Acad. Pol. & Soc. Sci. 1920. Pp. 166.)

Agriculture, Mining, Forestry, and Fisheries

NEW BOOKS

DAVIS, J. W. and HUGHES, T. H. *A brief commercial geography.* (New York: Hinds, Hayden & Eldredge. 1919. Pp. 274. 90c.)

DIXON, H. M. and HAWTHORNE, H. W. *Farm profits. Figures from the same farm for a series of years. Washington county, Ohio, twenty-five farms 1912-1918. Clinton County, Indiana, one hundred farms, 1910 and 1913-1918. Dane county, Wisconsin, sixty farms, 1913-1917.* (Washington: Supt. Docs. 1920. 15c.)

FINDLAY, H., editor. *The handbook of practical farmers; dealing with the more important aspects of farming in the United States; special chapters dealing with farm problems and practices by practical experts in different parts of the United States.* (New York: Appleton. 1920. Pp. 558. \$5.)

FRANCKE, F. W. *Abriss der neuesten Wirtschaftsgeschichte des Kupfers.* (Munich: Duncker & Humblot. 1920. Pp. 206. 32 M.)

GIBSON, W. *Coal in Great Britain; the composition, structure, and resources of the coalfields, visible and concealed of Great Britain.* (New York: Longmans. 1920. Pp. 311. \$7.50.)

GHAMBASHIDZE, D. *Mineral resources of Georgia and Caucasia. Manganese industry of Georgia.* (London: Allen & Unwin; New York: Macmillan. 1919. Pp. 182.)

GRAY, L. C. and TURNER, H. A. *The farm lease contract.* Farmers' bull. 1164. (Washington: U. S. Dept. Agri. 1920. Pp. 35.)

HAY, J. H. *Investigation of the production, distribution and prices of milk.* (St. Paul, Minn.: State Dept. Agri. 1920. Pp. 14.)

HAY, J. H. *Investigation of the fuel situation in Minnesota.* (St. Paul, Minn.: State Dept. Agri. 1920. Pp. 5.)

HIBBARD, B. H. and BLACK, J. D. *Farm leasing systems in Wisconsin.* (Madison, Wis.: Agri. Ex. Sta. 1920. Pp. 60.)

KING, C. L. *The price of milk.* (Philadelphia: J. C. Winston Co. 1920. Pp. 336.)

KOENGETER, E. *Das Kohlenwirtschaftsgesetz und der Kohlenhandel.* (Berlin: Deutsche Kohlenzeitung. 1920. Pp. 7.)

MACPHERSON, F. H., and others. *Primer relating to special forest industries questionnaire for the paper and pulp industry prepared by committee representing the industry, appointed by American Paper and Pulp Association.* (New York: Am. Paper and Pulp Assoc., 18 East 41st St. 1920.)

MARTIN, C. C., and others. *Mineral resources of Alaska; report on progress of investigation in 1918.* U. S. Geological Survey, bull. 712. (Washington: Supt. Docs. 1920. Pp. 204.)

MEAD, E. *Helping men own farms. A practical discussion of government aid in land settlement.* (New York: Macmillan. 1920. Pp. 228. \$2.25.)

Dr. Mead gives as his main purpose "to help in the solution of land problems of the future by describing the conditions and the influences which led to the passage of the Land Settlement Act in California and by explaining the methods and policies which it has brought into operation." The book presents the social and economic needs for the development of the rural people of California, the national policy of the distribution of public lands, and defects of private colonization. Land settlements in Australia and California are described in considerable detail.

The author is well prepared to speak authoritatively on the subject of land settlement both in Australia and in California, having served as chairman of the commission in charge of this work in Australia for eight years and chairman of the Land Settlement Board of California since 1915.

The colonization work in California was undertaken by the state because private colonization was not rendering the kind of service the people needed. Land unfit for cultivation was sold as farm land, settlers were charged exorbitant prices for land, time for making payment was too short, and men bought land without money enough to stock it. The success of a colonization plan in Australia where climate, products, and people are very similar to those of California, influenced public opinion.

The basis of the land settlement policy in Australia was "the purchase and subdivision of large estates and their sale in small improved farms to actual settlers. These settlers were to be helped by generous credit and by expert advice and direction." In California the governor selected a competent board, the legislature provided funds, 6300 acres of land were purchased for the settlement, a system of irrigation provided for on a large area, the land divided into farms of from 9 to 300 acres each, and settlers who had at least \$1500 and farm experience began filing applications for farms. Under the California act, farm workers obtained allotments of one and three fourths or two acres each. All members of the settlement cooperate in carrying on their work.

The author points out the pitfalls and notes mistakes made and also tells of the successes. He sees the mistakes made in parceling out the public domain and believes that the colonization plan is the best method to encourage settlers to own their own homes and become successful farmers. He discusses essentially the one type of colonization, that used in Victoria and California. He has not discussed other types such as that in which the state cooperates with private societies in colonization, found in Holland and Sweden; nor has he mentioned several countries which have provided farms for soldiers during and since the late war.

The author's methods are doubtless sound and his descriptions illuminating, but he has not pointed out the limitations of his scheme, and is perhaps over-optimistic of successes which may be met with under different conditions.

A. J. DADISMAN.

MEAD, E. *How California is helping people own farms and rural homes.* (Berkeley: Univ. California Agri. Ex. Sta. 1920. Pp. 28.)

MOOREHOUSE, L. A. and COOPER, M. R. *The cost of producing cotton.* Dept. bull. 896. (Washington: U. S. Dept. Agri. 1920. 15c.)

NEWELL, F. H. *Water resources, present and future uses.* (New Haven: Yale Univ. Press. 1920. Pp. 310.)

A revision of the addresses delivered in the Chester S. Lyman lecture series, 1913, before the senior class of the Sheffield Scientific School.

POTHMANN, W. *Zur Frage der Eisen- und Manganerzversorgung der deutschen Industrie.* Probleme der Weltwirtschaft. Schriften des Instituts für Seeverkehr und Weltwirtschaft an der Universität Kiel, 31. (Jena: Fischer. 1920. Pp. xii, 312.)

ROUSH, G. A. *The mineral industry; its statistics, technology, and trade during 1919.* (New York: McGraw-Hill. 1920. Pp. xix, 902.)

SCHMIDT, E. W. *Die agrarische Exportwirtschaft Argentiniens.* (Jena: Fischer. 1920. Pp. xv, 296.)

SPURR, J. E., editor. *Political and commercial geology and the world's mineral resources.* (New York: McGraw-Hill. 1920. Pp. ix, 562. \$5.)

THOMAS, G. *The development of institutions under irrigation, with special reference to early Utah conditions.* (New York: Macmillan. 1920.)

WHITE, B. *Gold, its place in the economy of mankind.* (New York: Pitman. 1920. Pp. 130. \$1.)

The agriculture of Ohio. Bulletin 326 (1918). (Wooster, O.: Ohio Ex. Sta. 1920. Pp. 438.)

Contains a history of agriculture in Ohio, by W. A. Lloyd; a detailed statistical study of Ohio agriculture from 1850 to 1910, by J. I. Falconer; and statistics of crop production by counties since 1850, by C. E. Thorne.

Analysis of the bill creating a federal live stock commission and statement on behalf of the packing industry by the Institute of American Meat Packers. S. 3944. (Washington: Supt. Docs. 1920. Pp. 38.)

Denmark—agriculture, commerce, finance. (New York: Brown Bros. & Co. 1920. Pp. 32.)

Farm labor in Wisconsin. Bull. 316. (Washington: Office of Farm Management. 1920. Pp. 48.)

Forestry and farm income. Farmers bull. 1117. (Washington: U. S. Dept. Agri. 1920. Pp. 35.)

A mineral almanac. Census of mineral production in the United States in 1919. (Washington: U. S. Geol. Survey. 1920. Pp. 128.)

The petroleum outlook. (Cambridge, Mass.: Arthur D. Little, 30 Charles River Road. 1920. Pp. 18.)

Stocks of leaf tobacco and American production, import, export, and consumption of tobacco and tobacco products, 1919. Bull. 143. (Washington: Bureau of the Census. 1920. Pp. 54.)

Timber depletion and the answer. A summary of the report on timber depletion and related subjects prepared in response to Senate resolutions 311. Dept. Circ. 112. (Washington: U. S. Dept. Agri. 1920. Pp. 16.)

Summary of operations. California oil fields. (San Francisco: State Mining Bureau. 1920. Pp. 74.)

Manufacturing Industry

NEW BOOKS

BUTLER, J. G., JR. *Fifty years of iron and steel.* (Youngstown, O.: Author. 1920. Pp. 158.)

GANSWINDT, A. *Die Wolle und ihre Verarbeitung.* (Leipzig: Hartleben. 1919. Pp. vi, 796. 12 M.)

HAY, J. H. *Investigation of the cost of clothing.* Bull. no. 6. (St. Paul, Minn.: Dept. Agri. 1920. Pp. 12.)

HAY, J. H. *Investigation of the trade practices and profits involved in the manufacture and sale of boots and shoes.* Bull. no. 7. (St. Paul, Minn.: Dept. Agri. 1920. Pp. 15.)

KEIR, M. *American manufacturing industries. Fundamental economic factors.* (New York: Ronald Press. 1920. \$3.)

POOLE, B. W. *The clothing trades industry.* (New York: Pitman. 1920. Pp. 100. \$1.)

SEYBERT, C. W. *Der Arbeiterwachstum in der deutschen Maschinenindustrie.* (Berlin: Springer. 1920. Pp. 100.)

WARBURG, J. P. *Wool and wool manufacture; a brief analysis for the layman.* (Boston: First Nat. Bank. 1920. Pp. 50.)

WILLMS, M. *Zur Frage der Rohstoffversorgung der deutschen Jute-Industrie. Probleme der Weltwirtschaft* Schriften des Instituts für Weltwirtschaft und Seeverkehr an der Universität Kiel. (Jena: Fischer. 1920. Pp. 77. 12 M.)

Transportation and Communication

NEW BOOKS

ATTERBURY, W. W. *The railroad labor situation. An address delivered before the National Industrial Conference Board, New York City, November, 18, 1920.* (New York: Office of Pa. R. R. System. 1920. Pp. 32.)

DRESSEL, C. *Die Entwicklung des deutschen Schiffbaues unter besonderer Berücksichtigung des Frachtdampferbaues.* (Weida: Thomas & Hubert. 1919. Pp. 107.)

FAYLE, C. E. *Seaborne trade. Vol. 1. The cruiser period.* (New York: Longmans. 1921. Pp. xviii, 442. \$7.50.)

GIESE, K. *Das Seefrachttarifwesen.* (Berlin: Springer. 1919. Pp. 395.)

IVEY, P. W. *The Pere Marquette Railroad Company. An historical study of the growth and development of one of Michigan's most important railway systems.* (Lansing, Mich.: Historical Commission. 1919. Pp. 259.)

WATKINS, E. *Shippers and carriers of interstate and intrastate freight.* Third edition. (Atlanta: The Harrison Co. 1920. Pp. 1-852; 853-1778. \$18.)

Address of Hon. John J. Esch on the occasion of the dinner in New York, December 15, 1920, given in honor of S. Davies Warfield. The address of S. Davies Warfield. (Baltimore: Nat. Assoc. of Owners of Railroad Securities. 1920. Pp. 17, 34.)

The freight traffic red book. (New York: The Traffic Pub. Co. 1920. Pp. 428.)

A list of references on the conflict of authority between the state commissions and the Interstate Commerce Commission in the control of rates under the Transportation act of 1920. (Washington: Bureau of Railway Economics. 1920. Pp. 19, typewritten.)

A list of references on the Cummins railroad bill and the Transportation act of 1920. (Washington: Bureau of Railway Economics. 1920. Pp. 55, typewritten.)

Railway earnings in 1919. Consecutive no. 150. Miscellaneous series no. 34. (Washington: Bureau of Railway Economics. 1920. Pp. 18.)

The relation of costs to motor truck transportation. (Akron, O.: The Firestone Ship by Truck Bureau. 1920. Pp. 15.)

The telephone industry. A report submitted to the governor, prepared by the Bureau of Women in Industry. (Albany: Dept. Labor. 1920. Pp. 95.)

Trade, Commerce, and Commercial Crises

NEW BOOKS

BARKER, A. *The British corn trade; from the earliest times to the present day.* (New York: Pitman. 1920. Pp. 132. \$1.)

COLLINS, J. H. *Straight business in South America.* (New York: Appleton. 1920. Pp. 305. \$2.50.)

COPELAND, M. T. *Marketing problems.* (Chicago: A. W. Shaw Co. 1920. Pp. 363.)

DUNCAN, C. S. *Marketing. Its problems and methods.* (New York: Appleton. 1920. Pp. xv, 500.)

FORD, T. F. and L. C. *The foreign trade of the United States.* (New York: Scribners. 1920. Pp. xiv, 325. \$3.)

This is intended for the general public and admittedly not for the exporter. We should differ with the recommendation given it, however, for use as "a text in business schools and in universities which give practical courses in political economy." The reviewer would consider of doubtful value any university course in which this was used as the text, although there would be no objection to assigning it as a brief introduction. Except

for the purpose of giving a very general review of the field to a beginner, it has little place in a course which aims to go deep enough into any phase of foreign trade to make it practical, or even to make it worth while.

Over one fifth of the book is devoted to an examination of statistics of our foreign trade, an equal portion to the organization and technique of import and export. There are short chapters upon transportation, insurance, phases of financing, balance of trade, German foreign trade organization, and the foreign trade of other nations. With other works in the same class, this must be described as superficial, though it furnishes an interesting survey for the general reader, while the bibliography at the close of each chapter gives direction to those who wish to go further.

F

H. R. T.

HAY, J. H. *Investigation of the costs and profits involved in the handling of sugar.* Bull. no. 3. (St. Paul: State Dept. Agri. 1920. Pp. 8.)

HAY, J. H. *Investigation of production, distribution and prices of bread.* Bull. no. 5. (St. Paul: State Dept. Agri. 1920. Pp. 7.)

MEISSNER, W. *Argentiniens Handelsbeziehungen zu den Vereinigten Staaten von Amerika.* (Cöthen: Otto Schulze. 1919. Pp. xiii, 363. 14 M.)

MEYER, E., JR. *Financing foreign trade. Address by invitation of a committee of bankers and delegates of the American Bankers Association Convention, Washington, D. C., October 20, 1920.* (New York: Author, 820 Fifth Ave. 1920. Pp. 17.)

NETTA, G. *Die Handelsbeziehungen zwischen Leipzig und Ost- und Südosteuropa bis zum Verfall der Warenmessen.* (Zurich: Leeman. 1920. Pp. 149.)

NOTZ, W. F. and HARVEY, R. S. *American foreign trade.* (Indianapolis: Bobbs-Merrill. 1920. Pp. 425. \$5.)

PEPPER, C. M. *American foreign trade. The United States as a world power in the new era of international commerce.* (New York: Century Co. 1919. Pp. ix, 350.)

Mr. Pepper evidently does not aim to give a logical and comprehensive account of his subject. He prefers to bring into strong relief various phases of our foreign trade and foreign relations in a way that will gain the attention of the public. The chapters upon the Farm in Foreign Trade, Machinery and National Efficiency, and Raw Materials are followed by five chapters upon commercial policy, emphasizing British and American policies. The second half of the book takes up various market areas such as continental Europe, Russia, the Near East, and South America, discussing the market possibilities with reference to the resources, trade development, needs, and commercial relations. Although the student of foreign trade and commercial policy will find little that is new to him in this book, it furnishes much that would be useful to the citizen in passing judgment upon many problems of foreign trade policy which are now awaiting decision. Mr. Pepper's long experience in government and private positions has well qualified him to give a broad-gauge view, so desirable in a work of this sort.

H. R. T.

PETERSON, F. H. *Investigation of the trade practices and profits involved*

in the manufacture and sale of building material. Bull. no. 9. (St. Paul: State Dept. Agri. 1920. Pp. 31.)

SLATER, J. A. *Commodities of commerce*. (New York: Pitman. 1920. Pp. 160. \$2.50.)

Essentials of trading with Latin America. (New York: Guaranty Trust Co. 1920. Pp. 28.)

Trading with the Near East. Present conditions and future prospects. (New York: Guaranty Trust Co. 1920. Pp. 19.)

Accounting, Business Methods, Investments, and the Exchanges

Personnel Administration. Its Principles and Practice. By ORDWAY TEAD and HENRY C. METCALF. (New York: McGraw-Hill Book Company. 1920. Pp. xii, 538.)

The imagination and energy expended in the field of personnel administration the past five years have resulted in a profusion of methods and principles. To present these in a manner both comprehensive and critical was a task, the magnitude of which only the experienced and widely versed personnel administrator can appreciate. In this task the authors have succeeded so well that it will be unnecessary to repeat it in the near future. Their book is a landmark in the literature of personnel administration.

Historically, the volume represents a crystallization of the courses in personnel administration which the authors have been giving for the past few years. Its contents are, therefore, more systematically presented than has usually been the case in this field. It is rich in specific examples drawn from many sources, but unlike most literature of industrial relations, the examples are subordinated to the principles which the authors are discussing, and are not described simply for their own sake. The comprehensive references given at the end of each section and the detailed index are a further indication of the painstaking care with which the entire volume has been prepared.

The general arrangement of the subject-matter is based on a conception of personnel work which, with slight variations, is now regarded as standard. The activities of the personnel department are arranged under six headings: employment methods; health and safety; education; research; employees' service; and joint control. Many of the topics discussed are of a controversial nature; for example, the questions of fatigue, length of the working day, and rest periods. In such cases the authors usually arrive at conclusions which not only are sane but which are of considerable practical value to the personnel

manager who is looking for a way out of the contradictions which have beset him. The treatment of the question of fatigue is typical. Instead of becoming involved in theoretical experiments and statistical reports, the authors suggest the practical steps by which necessary fatigue may be reduced. The discussion of the rating scale is an obvious exception to the usual procedure, for in this case the authors accept at its face value an expedient which at best is only in its initial experimental stage. A chapter on Arousing Interest in Work is timely because it dissipates a prevalent notion that interest in work can be aroused by any one device, and shows that interest is a complex factor which can be enlisted only through a comprehensive program of personnel activities.

Probably the strongest, and yet in some ways the weakest, section of the book, is that dealing with job analysis and job specification. It reveals the lack of a practical grasp of the details involved in job analysis and task setting. It is too uncritical in its acceptance of the dogma which scientific management has developed on this subject. On the other hand, it displays a penetrating grasp of the problem in its broader aspect by its insistence upon the participation of employees in the making of the job analysis.

The space given to the discussion of "joint control," that is, shop committees, factory councils, employees' committees, and the various plans which have as their underlying principle the participation of the workers in management, shows the large significance which the authors attach to this phase of personnel administration. The subject is treated not only from the standpoint of joint control in individual industries but from the point of view of national joint control as well. It may be contended that in this respect the book goes beyond the scope of personnel administration as it is usually understood. On the other hand, it is such breadth of view and courage of conviction which help to make the book a landmark not only for the past but for the future.

The fundamental belief which serves as the unifying thesis of the book is expressed in the quotation: "If personality is central in life, then it is—or should be—central in industry. . . . The department of personnel is, indeed, as some one has well characterized it, the department of personality" (p. 21). Departments of personnel and industrial relations are regarded today rather as practical adjuncts to the modern business organization, useful only in so far as they contribute to the success of the particular concern. However, the more comprehensive viewpoint from which the authors have presented the subject increases the value of their book for those who wish to understand this field in its widest possible significance.

HENRY C. LINK.

Principles of Accounting. By A. C. HODGE and J. O. McKINSEY. (Chicago: University of Chicago Press. 1920. Pp. xiv, 389. \$3.00.)

Accounts in Theory and Practice. By EARL A. SALIERS. (New York: McGraw-Hill Company. 1920. Pp. ix, 301.)

The emphasis of *Principles of Accounting* is placed upon the use of accounting as an aid to the business executive. Immediately following the first two chapters, which briefly discuss the meaning and function of accounting and the relationship of accounting to proprietorship, the first important aspects of the subject presented are the balance sheet and the statement of profit and loss. The subsequent arrangement of topics is somewhat novel but very effective. No mention is made of the books of original entry until after the consideration of such matters as the account as a means of classifying information, the construction and interpretation of accounts, the trial balance, the adjusting entries, the closing entries. The need for a record other than the ledger is now explained and the various typical forms of the books of original entry are described. In the remaining half of the book the topics presented include in the order given: business vouchers and forms; business practice and procedure—purchases and sales, cash and notes; books of original entry—sales and purchases records, the cash journal; controlling accounts; construction and interpretation of accounts (five chapters); accruals and deferred items; adjusting and closing entries, classification of accounts, financial reports; graphical method of presenting accounting facts.

The author of *Accounts in Theory and Practice* states that his purpose is to afford a first course in the principles of accounts. Although it is intended primarily as a first semester text it will probably prove useful in wider fields. He is planning to supplement this book with a second volume which will treat of the more complicated aspects of general accounting procedure such as valuation, ledger analysis, consolidations, branch house accounts, and realization and liquidation. The book is divided into six parts containing a total of 41 chapters averaging about seven pages a chapter. Part I devotes about 85 pages to the fundamental principles; part II briefly considers partnership accounting; part III has to do with expansion of accounting records; part IV with corporation accounting; part V, financial statements; part VI, special applications of principles. In part I the author explains and illustrates very effectively the functional classification of transactions by showing a specimen ledger with two divisions, the real accounts and the nominal accounts.

The authors of both of these books should be commended for having taken the pains to obtain concrete material and to present it in such

a way that the student not only can grasp the principles but can see their bearing upon particular problems. Although accounting forms are far less important than accounting analysis it must nevertheless be borne in mind that if at the end of a course a student is unable to apply his knowledge so as to design a simple set of books for a small activity he is justified in questioning the immediate value of the course. From the point of view of this particular need both of these books should prove especially helpful.

Instead of following the old plan of accompanying the text with one or two long laboratory sets the authors in both cases have chosen the more effective policy for their purpose of including an abundant number of short and well chosen exercises. In brief, these books have a common feature in that they are designed primarily to meet the needs of persons who wish to obtain accounting information as a special tool in their particular professions, but who do not expect to make the subject their life work. It is rather difficult to summarize the relative merits of one of these books as compared with the other, but those teachers who have at their disposal more than one semester in which to present general accounting may prefer *Accounts in Theory and Practice*. On the other hand, those teachers who have the problem of presenting the subject in a single term will probably find *Principles of Accounting* more nearly suited to their needs.

MARTIN J. SHUGRUE.

Massachusetts Institute of Technology.

NEW BOOKS

- BREED, W. D. *Cash and securities; the system of finance.* (New York: Dixie Business Book Shop. 1920. Pp. 74. \$1.)
- BRISCO, N. A. *Retail salesmanship.* (New York: Ronald. 1920. \$2.)
- CARPENTER, C. U. *Increasing production, decreasing costs.* (New York: Engg. Mag. Co. 1920. Pp. xiii, 432.)
- CHAMBERLAIN, J. A. *Commercial law; a practical manual covering the fundamental principles of law as applied to business in general, with special reference to common law affecting the more usual commercial transactions.* (Chicago: Am. Technical Soc. 1920. Pp. 316.)
- CHENEY, E. J. *Memorandum concerning principles and methods of water power valuations approved and practiced by various courts and commissions.* (New York: Author, 61 Broadway. 1920. Pp. 27.)
- COSTELLO, L. W. J. and O'SULLIVAN, R. *The profiteering act, 1919. Re-issue with addenda, 1920.* (London: Stevens & Sons. 1920. Pp. 75.)
- DOUGLAS, A. W. *Economic studies of states for merchandising.* (New York: Ronald. 1920. \$2.)
- FREDERICK, J. G. *The great game of business: its rules, its fascination, its*

services and rewards. (New York: Appleton. 1920. Pp. ix, 175. \$1.50.)

HERFORD, R. O. and JENKINS, H. G. *Outlines of industrial administration.* (London: Pitman. 1920. Pp. ix, 122. 6s.)

JORDAN, J. P. and HARRIS, G. L. *Cost accounting, principles and practice.* (New York: Ronald. 1920. Pp. xx, 529. \$3.)

It has been the object of the authors to outline in coherent and closely knit order the essential steps in cost procedure for industrial enterprises in general and not to compile an encyclopaedic handbook of the subject. The material has been so arranged as to present first in chapters i to xxvi the entire technique of cost accounting in unbroken sequence. Among the points discussed in these chapters are: cost components, establishing the basis of cost, methods of controlling cost records, departmentalization, orders and symbols, purchase and receiving records, transportation changes, stock record accounting, methods of pricing requisitions, how to take an inventory, accounting for labor calculation and application of departmental burden rates, financial statements, prevailing types of cost systems, by-product costs, defective work losses. Matters involving what may be termed the philosophy of the subject which demanded for more complete understanding a perspective of the records as a whole are taken up later in chapters xxvii to xxxvii. The topics which are treated in this second part include: the installation of a cost system, tool records, advantages of stock records, under- and over-absorbed burden, regulation of idle equipment delays, advantages and disadvantage of different methods of applying burden, interest on invested capital as a manufacturing cost, mechanical devices as aids to cost accounting, graphic production control, recent developments of cost accounting. As a special aid in visualizing the technique of cost procedure a chart illustrating the successive steps has been prepared. About 45 selected and well designed forms add to the value of the contents. Finally there is an appendix which contains 36 C. P. A. cost accounting problems most of which are reasonably explicit and worth while as class room data. Although in recent years the amount of good literature on cost accounting principles and methods for industries in general has been increasing, the reviewer believes this book has contributed substantially in showing how cost accounting may serve more fully as a useful managerial instrument as well as a means for fixing selling prices. M. J. S.

KELSEY, C., editor. *Industrial stability.* Annals, vol. XC. (Philadelphia: Am. Acad. Pol. & Soc. Sci. 1920. Pp. 177. \$1.)

KIRK, J. G. and STREET, J. L. *Bookkeeping for modern business.* (Philadelphia: Winston Co. 1920. Pp. 236.)

LEISERSON, W. R. *The worker's reaction to scientific management.* (New York: Engineering Societies Bldg. 1920. Pp. 8.)

Reprinted from Volume V, number 4 of *Bulletin of the Taylor Society*; an address delivered at a meeting of the Taylor Society in Rochester, N. Y., May 7, 1920.

LINCOLN, W. G. *Business men's laws of California.* (Los Angeles: Kellaway-Ide Co. 1920. Pp. 392.)

MARTIN, H. S. *The New York Stock Exchange. A discussion of the business done; its relation to other business, to investment, speculation, and gambling; the safeguards provided by the Exchange, and the means taken to improve the character of speculation.* (New York: Author. 1919. Pp. iv, 277.)

MEAD, E. S. *Corporation finance.* Fourth edition, revised. (New York: Appleton. 1920. Pp. xiv, 477. \$8.)

This fourth edition possesses all the merits of the earlier editions of the book and has been extended in some essential parts to make it cover more completely the problems of business finance. Attention is given to bank borrowing by corporations, the question being one of commercial finance as distinguished from corporation finance proper or investment finance. In devoting a chapter to this subject the author has recognized the fact that the student of corporations is as much concerned with the problems of current financing as he is with the methods and practices of permanent financing. In extending his discussion of preferred stock issues and their protection, Professor Mead has taken notice of the present tendency to give to preferred stocks a more important place in the field of investment. He also devotes a little space to a discussion of stocks issued without par value. A short treatment of "blue sky" laws is introduced in this edition, offering at least a suggestion of the efforts that have been made to protect the public against fraudulent security issues. The chief criticism of this chapter lies in what is, in fact, the chief criticism of the entire book, as a text for college classes—its brevity and incompleteness.

FLOYD E. ARMSTRONG.

MECHEM, F. R. *Elements of the law of partnership.* Second edition. (Chicago: Callaghan & Co. 1920. Pp. xxvi, 501.)

MORLEY, L. H. and KIGHT, A. C. under the direction of J. C. DANA. *2400 business books and guide to business literature.* (New York: H. W. Wilson Co. 1920. Pp. x, 456. \$5.)

A revised edition of *1600 Business Books*. This is more than a list for it analyzes the contents of books and periodicals and refers titles of chapters and subjects to their appropriate topical headings, numbering 2,000. The volume may be commended as one of the most useful handbooks in its special field.

NAYLOR, E. H. *Trade associations: their organization and management.* (New York: Ronald. 1920. \$5.)

PERKINS, E. A. *Philippine business law.* (New York: Appleton. 1920. Pp. xx, 492.)

ROE, E. T. *Lessons in business; a complete compendium of how to do business by the latest and safest methods.* (Toronto: John A. Hertel Co. 1921.)

ROSENKAMPF, A. H. *Bookkeeping theory and practice.* (New York: New York University Press. 1920. Pp. xi, 230.)

The material is that used in a course in bookkeeping in the School of Commerce, Accounts, and Finance at New York University. It is a text to serve as preparation for those who will make further study of account-

ing and is a very complete treatment of elementary bookkeeping. It is divided into three parts: lecture notes; statements of transactions, consisting of laboratory exercises and instructions; and business forms and papers. The fundamentals are carefully explained and clearly defined. Most of the questions which naturally confront the beginner are made clear at the outset. Although possibly lacking in broadness, the book is thorough as to detail. It makes plain the relation between the bookkeeping entries and the actual transactions and routine which give rise to the entries. However, there is a lack of emphasis upon the relation that financial statements bear to bookkeeping. Especially is this true of the treatment of closing the books. The definitions and explanations of controlling accounts and subsidiary ledgers are simple and concise.

M. J. S.

RUSSELL, T. *Commercial advertising*. (New York: Putnam. 1920. \$2.60.)

SULLIVAN, J. J. *Pennsylvania business law*. (Philadelphia: Business Law Pub. Co. 1920. Pp. 748.)

TRECARTIN, WHITE, and others. *The way to great production*. (Chicago: A. W. Shaw Co. 1920. Pp. 252. \$3.)

VARDAMAN, B. R., editor. *Business efficiency*. (Chicago: Lincoln Institute. 1920. Pp. x, 390; xi, 387.)

WAITE, J. B. *Patent law*. (Princeton, N. J.: Princeton Univ. Press. 1920. \$5.)

Accountants' directory and who's who. (New York: Forty-fifth St. Press. 1920. \$10.)

Attention value of advertisements. (New York: Graduate School of Business Administration of New York University. 1920. Pp. 32. 50c.)

Liberty bonds; a handbook. (New York: Higginson & Co., 43 Exchange Place. 1920. Pp. 20.)

Merchants' Association of New York yearbook, 1920. (New York: The Association, 233 Broadway. 1920. Pp. 334.)

A method of analysing the farm business. Farmers' bull. 1139. (Washington: Dept. Agri. 1920.)

New York dispensaries; book and record keeping. (Reprinted from *The Modern Hospital*, July and August, 1920.)

Operating expenses in retail shoe stores in 1919. Bulletin no. 20. (Cambridge: Bureau of Business Research, Harvard Univ. 1920. Pp. 20. \$1.)

An analysis of reports received from 197 stores for the year 1919, located in 37 states, Hawaii, and Canada. Of these, 130 had furnished reports previously and 104 furnished reports for both 1918 and 1919. From the reports of this latter group, several comparisons have been worked out to indicate changes that have taken place during the last year.

Operating expenses in retail hardware stores in 1919. Bulletin no. 21. (Cambridge: Bureau of Business Research, Harvard Univ. 1920. Pp. 17. \$1.)

The second annual summary for retail hardware stores is here presented. Reports are from 155 stores in 35 states for 1919.

Operating expenses in retail drug stores in 1919. (Cambridge: Bureau of Business Research, Harvard Univ. 1920. Pp. 15. \$1.)

A study of operating expenses and management problems in the retail drug trade was begun by the Harvard Bureau of Business Research in 1919. To assist in this study, a standard system of accounts for retail drug stores was published in January, 1920. The reports received on the standard form for the year 1919 are summarized in this bulletin.

Proceedings of the fifteenth annual convention of the National Association of Comptrollers and Accounting Officers. (New York. 1920. Pp. 74.)

Salesmanship; the standard course of the United Y. M. C. A. schools. Book I, *The salesman and his job.* (New York: Association Press. 1920. Pp. xiv, 194.)

Labor and Labor Organizations

NEW BOOKS

ALDEN, P. and others. *Labour and industry: a series of lectures.* (New York: Longmans. 1920. Pp. viii, 284. \$5.)

BEARD, M. *A short history of the American labor movement.* (New York: Harcourt, Brace and Howe. 1920. Pp. 174.)

It is the author's intention to give a "brief and simple story of the labor movement in the United States from the day of independence to the present time"; one that shall occupy the field between the numerous special studies and the two-volume *History of Labor in the United States*, prepared by Professor Commons and his associates. In laying out this field for herself the author does not appear to recognize the writings of Professor Carlton, as covering practically the same subject.

To attempt even to mention all of the important topics that belong to this movement, within so narrow limits, seems rather daring; to undertake to discuss them, futile. Moreover, the strongest objection must lie against what the book does not contain. These omissions were of course necessary in observing a 170-page limit, yet the omissions are mainly of subject-matter and not of topics.

It is doubtful if a book of this character will serve any good purpose. Because of its brevity it fails to give any comprehensive understanding of the labor movement "considered as a state of mind" (page 1) or of even "the outward and visible signs of this movement." Such an outline discussion only affords a reader the opportunity to read into the outline his own views, whatever they may be.

If these objections are laid aside and the actual work done be judged, the book speaks well for the author's ability to condense, without leaving merely abstract and highly generalized statements. Generally speaking, this is illustrated throughout. If any work of this character can be worth while, this book will accomplish its purpose.

GEORGE G. Groat.

BEMAN, L. T., compiler. *Selected articles on the compulsory arbitration and compulsory investigation of industrial disputes.* Debaters' handbook series. Fourth edition, enlarged. (New York: H. W. Wilson Co. 1920. Pp. lxxi, 303. \$1.25.)

BLOOMFIELD, D. *Labor maintenance; a practical handbook of employees' service work.* (New York: Ronald Press Co. 1920. Pp. xvii, 530.)

BUDISH, J. M. and SOULE, G. *The new unionism in the clothing industry.* (New York: Harcourt, Brace & Howe. 1920. Pp. viii, 344.)

CARLTON, F. T. *The history and problems of organized labor.* Revised edition. (New York: Heath. 1920. Pp. xi, 559.)

FROST, S. *Labor and revolt.* (New York: Dutton. 1920. Pp. xv, 405. \$4.)

GOLDMARK, J. and HOPKINS, M. D. *Comparison of an eight-hour plant and a ten-hour plant.* Studies in industrial physiology; fatigue in relation to working capacity, no. 1. Public health bulletin no. 106. (Washington: Supt. Docs. 1920. Pp. 213.)

GOMPERS and ALLEN. *Debate between Samuel Gompers and Henry J. Allen.* (New York: Dutton. 1920. Pp. 105. \$1.50.)

GOODRICH, C. L. *The frontier of control: a study of British workshop policies.* (New York: Harcourt, Brace, and Howe. 1920. Pp. xvi, 277.)

GREEN, F. E. *A history of the English agricultural laborer, 1870-1920.* (London: King. 1920. Pp. 356.)

HETHERINGTON, H. J. W. *International labour legislation.* (London: Methuen. 1920. Pp. 192. 6s.)

This is mainly a descriptive account, with critical comment, of the structure and status of the International Labour Conference and the proceedings of its Washington session. The author was a member of the secretariat of that conference. There is an introductory chapter on the need for, difficulties in, and limitations of international labor legislation in general and a brief chapter of conclusions as to what should be the composition and procedure of the conference and the extent to which the delegates should be bound by instructions from their home countries. Eighty of the 192 pages are given over to appendices.

Half of the text is devoted to the Washington meeting. Each of the matters dealt with there is taken up topically and the run of the discussions summarized. The differences in interest which appeared between countries, frequently reflecting differences in economic conditions or stages of development, and the cross-divisions between the representatives of the employers and those of the employees are thrown into relief and the whole supplemented by critical observations which are by no means always favorable. This part of the book is an interesting and valuable contribution.

D. A. McC.

JOHNSON, YOUNG, MACKENZIE, and others. *The management and the worker.* (Chicago: A. W. Shaw Co. 1920. Pp. 228. \$3.)

KASTEL, W. *Das neue Arbeitsrecht.* (Berlin: Springer. 1920. Pp. xvi, 323.)

MACDONALD, J. R. *The policy of the Labour party.* New library of social science. (New York: Seltzer. 1920. \$2.)

MARTIN SAINT-LÉON, E. *Syndicalisme ouvrier et syndicalisme agricole.* (Paris: Payot. 1920. Pp. 160.)

PRICE, SIMPSON, WOLF, and others. *Working conditions, wages and profits.* (Chicago: A. W. Shaw Co. 1920. Pp. 254. \$3.)

RYAN, J. A. and HUSSLEIN, J. *The church and labor.* (New York: Macmillan. 1920. Pp. 319. \$3.75.)

This volume is published under the auspices of the Department of Social Action of the National Catholic Welfare Council. The object of the editors is to present from authoritative sources the teachings of the Roman Catholic Church on the subject of labor relations. The book is primarily a collection of documents, with comment and explanation by the editors. There is a brief but valuable introduction by Dr. Ryan, followed by a chapter by Dr. Husslein expounding the views of Frederic Ozanam and the teachings of Bishop Ketteler, with liberal extracts from their works. This chapter is homiletic in tone and strongly condemnatory of both laissez-faire and socialism. Two papers by Dr. Ryan and one by Dr. Husslein, all previously printed, complete the book.

The documentary material is built around the Encyclical of Pope Leo XIII, *On the Condition of the Working Classes*. It embraces pronouncements from the last three popes, four cardinals, and the hierarchies of four countries. Dr. Ryan states that the collection includes every document of practical importance issued by any pope or bishop on these subjects since the Industrial Revolution. The American documents are Cardinal Gibbons' memorial on the Knights of Labor, the reconstruction program of the four bishops constituting the administrative committee of the National Catholic Welfare Council, and the passages on industrial relations of the pastoral issued by the American archbishops and bishops in September, 1919. The main points emphasized by the editors in the content of these documents are the necessity of observing religious precepts in industrial relations, the limitations of private property, the living wage, the right of workingmen to organize and the necessity of state regulation of labor conditions when voluntary measures are inadequate.

DAVID A. McCABE.

RYAN, W. P. *The Irish labor movement; from the twenties to our own day.* (New York: Huebsch. 1920. Pp. 295. \$2.)

SNOWDEN, P. *Labour and national finance.* (London: Parsons. 1920. 4s. 6d.)

———. *Wages and prices. An inquiry into the wages system and the relation of wages and prices.* (London: The Faith Press. 1920. Pp. 124.)

STOKER, H. *The industrial courts act, 1919, and conciliation and arbitration in industrial disputes.* (London: Stevens and Sons. 1920. Pp. 56.)

THOMAS, J. H. *When labour rules.* (London: Collins. 1920. 10s.)

WHITLEY, J. H. *Works committees and industrial councils: their beginnings and possibilities.* (Manchester, Eng.: University Press. 1920. Pp. 25.)

Amalgamated clothing workers of America. Report of the general executive board to the fourth biennial convention, Boston, Mass., May 10-15, 1920. (New York: 31 Union Square. 1920. Pp. 233, lxiv.)

Changes in wages during and since the war. September, 1914-March, 1920. (Boston: National Industrial Conference Board. 1920. Pp. 53.)

Industrial unrest and labour policy. Report of the Industrial Committee. (London: National Party. 1920. 9d.)

Open shop versus closed shop. (Austin, Texas: Univ. of Texas. 1920. Pp. 60.)

Profitism, slackism, and you. A constructive study of the labor problem. (Seattle: Chamber of Commerce. 1920. Pp. 36.)

Money, Prices, Credit, and Banking

NEW BOOKS

ALEXANDER, J. S. *Banking and its relationship to domestic business and export trade.* (New York: National Bank of Commerce. 1920. Pp. 14.)

BEAN, R. H. *Elements of trade acceptance practice.* (New York: Am. Acceptance Council, 111 Broadway. 1920. Pp. 16. 5c.)

VON BECKERATH, H. *Die Markvaluta.* (Jena: Fischer. 1920. Pp. 37. 2.80 M.)

CANNAN, E. *The paper pound of 1797-1821.* A reprint of the Bullion Report with an introduction. (London: King. 1919. Pp. xlix, 71.)

The editor's scholarly introduction to the reprint of the Bullion Report gives an account of the events leading to the suspension of specie payments, of the inconvertible paper money régime, and of resumption, together with an explanation of why the "great evil" did not grow much greater than it did. Statistical tables elucidate both the introduction and the report itself.

C. A. P.

CASSEL, G. *Weltwirtschaft und Geldverkehr unter besonderer Berücksichtigung des Valutaproblems.* Das neue Reich, Heft 7. (Gotha: F. A. Perthes. 1920. Pp. 25. 1 M.)

COURCELLE-SENEUIL, J. G. *Les opérations de banque: traité théorique et pratique.* Second edition, brought down to date, by A. LIESSE. (Paris: Alcan. 1920. Pp. xviii, 742. 25 fr.)

DUFAYEL, H. *Banque: à l'usage du personnel des établissements financiers et des banques particulières.* (Paris: Dunod. 1920. Pp. lxxix, 162, lxiii.)

FISHER, I. *Stabilizing the dollar.* (New York: Macmillan. 1920. Pp. xlix, 305. \$3.50.)

Stabilizing the Dollar, differs from the author's previous publications on the same subject in being designed to make a distinctly popular appeal. The main body of the work is devoted to a consideration of (1) the facts relative to price changes, (2) the underlying causes, (3) the evils resulting, and (4) the remedy. It is written in a delightfully clear and convincing fashion and should go far towards effecting the introduction of a stable monetary unit. Opposition to stabilization breaks down under the great force, rigorous logic, and trenchant criticism embodied in Professor Fisher's presentation.

Not only are the evils to be corrected and the advantages to be gained set forth with clearness and convincing power, but the author's own plan, briefly outlined in the main body of the text, is elaborated and defended in supporting appendixes that follow.

One query in the mind of the reviewer the author leaves unanswered. Inasmuch as Professor Fisher's plan (which is here assumed to be familiar to readers of the REVIEW) proposes to regulate the number of monetary units through a regulation of the weight of each, might not stabilization be attained more simply and directly and with less possible interference with international trade and international obligations through a regulation of the reserves of federal reserve banks and consequent regulation of loans and deposits of member banks? Such a regulation of bank deposits, which now constitute the bulk of our purchasing power, might be accomplished through a substitution of gold certificates held by federal reserve banks for federal reserve notes during periods of rising prices and of federal reserve notes for gold certificates during periods of falling prices. The present heavy gold holdings of the federal reserve banks coupled with the even greater amount of federal reserve notes now outstanding would seem to favor the successful operation of such a plan for decades to come.

C. A. P.

FOGG, L. A. *Bankers' securities against advances*. (London: Pitman. 1920. Pp. 123. 6d.)

GREENWOOD, W. J. *How to make money in foreign exchange and foreign bonds*. (New York: Financial Books Co. 1920. Pp. vii, 129. \$2.)

The magic formula of this pamphlet is to buy foreign exchange or foreign bonds at present and to wait until exchange returns to normal. Nothing is more simple except possibly purchasing low grade stocks below par and waiting until they reach par.

HARE, L. *Currency and prices*. (London: King. 1920. Pp. 74. 2s. 6d.)

HAWTREY, R. G. *Currency and credit*. (London: Longmans. 1919. Pp. vii, 393. \$5.)

A careful analytical study of such closely related topics as paper money and the quantity theory, the foreign exchanges, systems of note issue, the theory of banking, financial crises, war finance. The author treats credit as the primary means of payment and money as subsidiary in an effort to set forth the nature and causes of the business cycle, and finds the instability of credit traceable not so much to the banker as to the trader and promoter. The distinctly international flavor of the work accentuates its timely character.

C. A. P.

HOLDSWORTH, J. T. *Money and banking*. New edition, revised. (New York: Appleton. 1920. Pp. xiv, 515. \$3.)

KALE, V. G. *Currency reform in India*. (Poona: Author, Ferguson College. 1919. Pp. 107.)

KING, W. I. *Building material prices in 1921*. (New York: F. W. Dodge Co., 119 West 40th St. 1920. Pp. 12.)

KIRKBRIDE, STERRETT, and WILLIS. *The modern trust company: its functions and organization. An outline of fiduciary banking*. Fifth edition,

- enlarged and revised. (New York: Macmillan. 1920. Pp. xviii, 549. \$6.75.)
- LANGSTON, L. H. *Practical bank operation*. (New York: Ronald. 1920. Two vols. \$10.)
- MASTERMAN, J. H. B. *Clerical incomes. An inquiry into the cost of living among the parochial clergy*. (London: G. Bell and Sons. 1920. Pp. 307. 6s.)
- MEYER, E., JR. *Financing foreign trade. Address by invitation of a committee of bankers and delegates of the American Bankers Association Convention*. (New York: Author, 820 Fifth Ave. 1920. Pp. 17.)
- MOREHOUSE, W. R. *Bankers guide book*. (Los Angeles: Bankers Service Co. 1920.)
- MORGAN and PARKER. *Banking laws of New York. Chapter 2 of consolidated laws, chapter 396, laws of 1914, with notes, annotations and references*. Fifth edition. (New York: Banks Law Pub. Co. 1920. Pp. 567. \$5.)
- NEUSTÄTTER, H. *Schwedische während des Weltkrieges*. (Munich: Drei Masken-Verlag. 1920. Pp. 111.)
- ROBERTS, G. E. *Banking fancies and the facts. An answer to Frederic Howe's outcry that Wall Street controls the banking system and that the money octopus has the country in its clutches*. (New York: National City Bank. 1920. Pp. 7.)
- SHELDON, H. P. *The practice and law of banking*. (London: Macdonald & Evans. 1920. 12s. 6d.)
- SHUGRUE, M. J. *Problems in foreign exchange*. (New York: Appleton. 1920. Pp. 173. \$2.20.)
- SNELL, G. B. *Currency exchange tables*. (Montreal: Bank of Montreal. 1920.)
- STEINER, W. H. *Some aspects of banking theory*. (New York: W. D. Gray, 106 Seventh Ave. 1920. Pp. 158. \$1.75.)
- SUBERCASEAUX. *Le papier-monnaie*. (Paris: Giard & Brière. 1920. Pp. 446.)
- WESTON, W. J. *Dictionary of economic and banking terms*. (London: Pitman. 1920. Pp. 166. 5s.)
- A bank catechism*. (New York: Guaranty Trust Co. 1920. Pp. 45.)
- Bankers acceptances; principles and practice*. (New York: American Acceptance Council, 111 Broadway. 1920. 10c.)
- Changes in the cost of living, July, 1914-July, 1920*. Research report no. 30. (Boston: National Industrial Conference Board. 1920. Pp. 28.)
- Joint committee on cost of living: interim report on money and prices*. (London: Coöperative Prtg. Soc., Ltd., Tudor St. 1920.)
- Maryland Bankers' Association: proceedings of the twenty-fifth annual convention. May, 1920*. (Baltimore. 1920. Pp. 128.)

- Questions and answers on the federal reserve system.* (Richmond: Federal Reserve Bank of Richmond. 1920. Pp. vi, 101.)
- Standards of living. A compilation of budgetary studies.* Revised edition. (Washington: Bureau of Applied Economics. 1920. Pp. iii, 156.)
- A survey of trade acceptance progress.* (New York: Irving Nat. Bank. 1920. Pp. 18. 1920.)
- Three and a half billion dollar floating debt of Europe to private creditors in America; the basic cause of bank expansion and "tight money" in the United States. London's position.* (New York: Chase Nat. Bank. 1920. Pp. 32.)
- Thrift and savings. Reports and addresses, 1920.* (New York: Am. Bankers Assoc. 1920. Pp. 12.)

Public Finance, Taxation, and Tariff

NEW BOOKS

- ADAMS, T. S. *Needed tax reform in the United States.* (New York: Evening Post. 1920. Pp. 36. 25c.)
- ASHLEY, P. *Modern tariff history: Germany, United States, France.* Third edition. (New York: Dutton. 1920. Pp. x, 365. \$5.)
This edition adds a chapter on the United States tariff of 1913 and statistics for the years 1909-1913.
- BOUDON, R. *Les finances publiques de l'Allemagne.* (Paris: Dupont. 1919. Pp. 142.)
- BULLOCK, C. J. *Selected readings in public finance.* Second edition. (Boston: Ginn. 1920. Pp. x, 920. \$4.)
This second edition has about 250 pages more material than the first. Among articles now included are: Our increasing public expenditures, by T. E. Lyons; Methods of controlling the movement of public expenditures, report of the National Tax Association; The Swiss federal railways, by A. N. Holcombe; The commercial revenues of Frankfort, by Anna Youngman; Revenue from fees in Frankfort, by Anna Youngman; The general property tax in the United States, by C. J. Bullock; The taxation of property and income in Massachusetts, by C. J. Bullock; The Wisconsin income tax, by Thomas S. Adams; The federal income tax of 1913, by C. J. Bullock; The taxation of public service corporations, report of the Connecticut Tax Commission of 1913; The taxation of public service corporations, report of a committee of the National Tax Association; State and local taxation of banks, by F. R. Fairchild; State inheritance taxes in the United States, the special report of the Board of Tax Commissioners of Rhode Island; A national inheritance tax, by E. R. A. Seligman.
- CHAVENEAU, J. *Comment payer les impôts nouveaux.* (Paris: Hachette. 1920.)
- CLABAUGH, W. *Income and profits taxes; a series of lectures, with questions.* (New York: Association Press. 1920. Pp. 334.)
- CLARK, A. B. *An outline of provincial and municipal taxation in British Columbia, Alberta, and Saskatchewan.* (Winnipeg: University of Manitoba. 1920. Pp. 97.)

- DALBERG, R. *Die Kapitalertragsteuer vom 20. März 1920.* (Berlin: Heymanns. 1920. Pp. 68.)
- FOELDES, B. *Finanzwissenschaft.* (Jena: Fischer. 1920. Pp. xiv, 686. 33 M.)
- HAENEL, H. G. *Eine Kapital-Rentensteuer im Rahmen der Neuordnung der Reichsfinanzen.* (Jena: Fischer. 1920. Pp. 76. 5 M.)
- KAHN, O. H. *Some suggestions on tax revision. Address delivered before the Massachusetts Chamber of Commerce, Boston, October, 1920.* (New York: Author, 52 William St. 1920. Pp. 75.)
- KALE, V. G. *India's war finance and post-war problems.* (Poona: Author, Fergusson College. 1919. Pp. 153.)
- LACHAPELLE, G. *Les finances britanniques.* (Paris: Sirey. 1920. 16 frs.)
- LELAND, S. E. *Taxation in Kentucky.* Studies in economics and sociology, no. 1. (Lexington: University of Kentucky. 1920. Pp. 170. \$1.)
- LORD, H. W. *The budget system.* (Providence, R. I.: Legislative Reference Bureau. 1920. Typewritten.)
- POWELL, H. M. *Supplement to "Taxation of corporations and personal income in New York" containing a commentary on all important matters affecting the taxation of persons and of corporations since July 1, 1919.* (New York: Clark Boardman. 1920. Pp. 401-681. \$2.50.)
- RICCI, U. *Protezionisti e liberisti italiani.* (Bari: Laterza e Figli. 1920. Pp. 203. 6.50 l.)
- SCHWARZ, O. *Deutsche Finanzlage und Weltwirtschaft.* (Berlin: Mittler & Sohn. 1920. Pp. 27.)
- WEBB, S. *Grants in aid. A criticism and a proposal.* Studies in economics and political science no. 24 in the series of monographs by writers connected with the London School of Economics and Political Science. New edition. (London: Longmans. 1920. Pp. 145.)
- International revenue laws in force May 1, 1920, with appendix containing laws of general nature and miscellaneous provisions applicable to administration of internal-revenue laws. Compilation of 1920.* Treasury Dept. doc. 2843. (Washington: Supt. Docs. 1920. Pp. 1035.)
- Federal estate tax. Law and regulations. Containing complete text of estate tax law, title IV of revenue act of 1918; regulations 37 revised; forms used; and other supplementary information.* (New York: Equitable Trust Company. 1920. Pp. 213.)
- List of references on municipal finance and taxation.* (Washington: Library of Congress, Division of Bibliography. 1920. Pp. 25.)
- New York state franchise tax on business corporations.* (New York: Guaranty Trust Co. 1920.)
- Papers prepared for the international financial conference.* (London: Harrisons, 47 St. Martin's Lane. 1920.)
- Report of the special joint committee on taxation and retrenchment. Retrenchment section.* (Albany. 1920. Pp. 155.)
- Deals particularly with retrenchment in expenditures by cities and counties.

Population and Migration

NEW BOOKS

COMMONS, J. R. *Races and immigrants in America*. Revised edition. (New York: Macmillan. 1920. \$2.50.)

DRACHSLER, J. *Democracy and assimilation: the blending of immigrant heritages in America*. (New York: Macmillan. 1920. Pp. xii, 275. \$3.)

MONDAINI, M. G. *La colonisation anglaise*. (Paris: Editions Bossard, 43 rue Madame. 1920. Pp. 960.)

WOOFER, T. J., JR. *Negro migration: changes in rural organization and population of the cotton belt*. (New York: W. D. Gray, 106 Seventh Ave. 1920. Pp. 195. \$2.25.)

Problems of population and parenthood. Being the second report of and the chief evidence taken by the National Birth-rate Commission, 1918-1920. (New York: Dutton. 1920. Pp. clxvi, 423.)

Social Problems and Reforms

Immigration and Americanization. Selected Readings. Compiled and edited by PHILIP DAVIS. (Boston: Ginn and Company. 1920. Pp. xii, 770. \$4.00.)

As the editor of this bulky volume of "selected readings" notes, much of our ante-bellum literature on immigration is out of tune with the new order. For years before the war, students of the immigration question, especially those who were in personal, helpful contact with the immigrant, and who knew sympathetically and intimately, through settlement and charity work or otherwise, the difficulties and injustices to which the immigrant was subject because of his lack of knowledge of American ways and institutions, urged upon a heedless public the need of "assimilation." With the war came the militant awakening of the national consciousness, unfortunately assuming, under what we now recognize and confess to have been a species of crowd psychology and fear hysteria, a disposition not only nationalistic but occasionally jingoistic in the extreme. With this nationalistic jingoism, perfectly natural and to be expected under the circumstances, and exhibiting itself primarily in hatred of German-speaking communities and fear of the foreign-language press, came the popular, and therefore uncritical, demand for "Americanization," which was regarded as something new in the way of recommended social processes. Curiously—or perhaps not so curiously, to the objective observer of employer-class psychology—the cry for "Americanization" was taken up most loudly by precisely those interests and organs which in former years had been most conspicuously and cynically indifferent to any other aspect of immigration than the economic, and heedful of that only in so far as immigration

afforded ample supply of cheap and tractable labor. Such far-away and profitless ideals or processes as assimilation or Americanization had little appeal to those who, personally or in their corporate capacity, for the time being at least, could afford to be indifferent to the charge of organized labor that manufacturing and mining interests were breaking down, or at least keeping down, the American workman's wages and standard of living by the importation, sometimes in violation or evasion of the contract labor laws, first of French Canadians, and then of successive races from South and East Europe and West Asia, with successively lower standards of living, denser ignorance, and consecutively less assimilability to American conventions and ideals, or to the pleadings of scholars and publicists who saw in these waves of successively lower and more alien standards the promise of intensified class conflicts or the definite development of an industrial caste system little in accord with the ideals of liberty and opportunity upon which the Fathers are currently said to have founded the nation.

When the psycho-economic history of the years 1917 to 1921 shall be written by one sufficiently detached in time and sentiment, this sudden solicitude on the part of the ruling interests for the integrity of "American" ideals and viewpoints will doubtless be properly and fairly related to the fear of "radicalism" and the popular belief that "radicalism" and "foreign-language" are synonymous terms. Be that as it may, all classes now seem to be in accord, nominally at least, on the need of assimilation, or, as it is now more appealingly called, Americanization. Scores of Americanization societies, leagues, and committees have been formed, government and private agencies have drawn up dozens of programs and "aids," and literally thousands of tracts and pamphlets have burdened the press. Some of these projects have been conceived in a broad and liberal spirit, with a fairly single eye to the welfare of the immigrant and of America; most of them, perhaps, are less edifying. As the months have gone by, with their successive revelations of profiteering on the part of some erstwhile "100 per cent" Americans, steel strike reports, and other light in dark places, the more intelligent and circumspect public has begun to distinguish between Americanization "true and false," and to be a little cautious as to the sources of its inspiration and critical of the motives of those who would identify "American" with blind industrial reactionism. The plain truth is, of course, that the cause of disinterested and really patriotic Americanization or assimilation has been greatly injured by the attitude of the majority of employers and not greatly aided by the uncritical, headlong enthusiasm of some of its superficial friends.

All the more need, therefore, for deliberate study and consideration of the meaning and processes of Americanization, of the immigration

which has brought the problem upon us, and of the characteristics (actual, not imputed by nationalistic, entrepreneurial fancy) of those who are to be Americanized.

The book before us should be a valuable and welcome aid, both to the theoretical student, and to those engaged in the difficult tasks of Americanization itself. The first 425 pages are given over to selections on immigration proper—history, causes, characteristics, effects, and legislation. This leaves 320 pages for Americanization—policies and programs, distribution, education, naturalization. This part concludes with an enlightening, not to say entertaining, chapter setting forth in their own words the ideas of certain prominent public men and of a scholar or two, as to what “American” and “Americanization” mean, or at any rate ought to mean.

It would be beside the point to criticize the editor's selections in detail. One excellent point is that they are chosen with view to an understanding of the immigrant as a person. The editor would perhaps have done better to omit much of the historical and statistical matter in part I and to have either expanded the pages on Americanization or, perhaps still better, reduced the size of his book.

Viewed from both theoretical and practical points of view, chapter XI, on Americanism contains the kernel of the whole question, offering, as it does, opportunity for comparison of ideals perhaps similar in substance but certainly widely different in emphasis, and suggestive of widely varying degrees of the nationalistic “complex.” The editor has here done good service in bringing together in close proximity the militant, “preparedness” version of Americanism held by Theodore Roosevelt, the idealism of President Wilson, and the trenchant analysis of a scholar like Frances A. Kellor. To the reviewer's notion, the reprinting of the latter's “What is Americanization” alone justifies the addition of yet another volume of “readings” or “selections,” a type of constructive composition now become surprisingly common in spite of the high cost of printing. Both the publishers and the editor are to be congratulated, the publishers in their choice of editor, for Mr. Davis knows from personal experience what it is to be an immigrant and to be “Americanized,” and the editor because his book shows exhaustive reading, keen appreciation of the purpose it should fulfill, and intelligent selection of material to that end. One wishes, however, that he had set out the Americanization ideals of the vested interests somewhat more sharply, and that he had devoted a very necessary chapter to the Americanization of the American.

A. B. WOLFE.

University of Texas.

The New Industrial Unrest: Reasons and Remedies. By RAY STANDARD BAKER. (New York: Doubleday Page and Company. 1920. Pp. 231. \$2.00.)

One may well question whether there is a new industrial unrest, except in the sense that the present is new as compared with the past. There is nothing essentially new in the fact of unrest in the United States—this book deals almost exclusively with conditions in this country—and this unrest manifests itself in ways that have been familiar for generations. Even the magnitude of the wave of unrest that has swept over the country is not comparatively greater than in the seventies or nineties of the last century.

One who is familiar with Mr. Baker's writings need not be told that this book presents a clear picture of the conditions it describes and an adequate analysis of the underlying causes. The book is built around the steel strike and particularly the city of Gary as epitomizing the 1919 industrial situation so far as reasons for unrest are concerned. Judge Gary typifies the ultra conservative or reactionary spirit among employers which came to the front at the close of the war and probably as a result of the war. On the other side are the heterogeneous mass of workers of many races and tongues in the steel mills who had been inspired by the idealism that swept over this country during the war and who had believed that a new era of democracy and goodwill was really dawning on the world. These simple folks are now undergoing the pains of disillusionment. "They had seen a vision, dreamed a dream: they had awakened. It was snatched away." Men were being discharged and rumors of wage reductions were current, and the dreary mills, the long hours, and the crowding and congestion in lodgings and homes seemed more unbearable than ever. Moreover the saloon had been taken away from them and that "great deadener of human trouble—and human ambition—alcohol" had been removed. Here was a fertile field for radical ideas and fit material for radical leadership.

The struggle between these two opposing forces and tendencies was inevitable. It characterised the year following the armistice. It was carried on under conditions which favored the conservative or reactionary side. The "great third party," the American public, was also undergoing a process of disillusionment.

The remedies proposed by the author are not particularly new or startling. The new coöperative methods of management through shop committees and industrial councils, will, he thinks, gradually replace the old militaristic methods in which industrial peace was only an armed truce between organizations of employers and labor unions, and the new profession of the labor manager will supplant that autocracy of

management which at its worst indulged in brute force and intimidation and at its best in a benevolent paternalism. But he points out the danger that the new devices may fail if they are used with the intent of forestalling the organization of labor.

These methods are not to be regarded as a panacea. To an impatient demand for a solution of the labor problem the author replies, "It consists in the attitude, the spirit, which one maintains toward the labor problem—an adventurous, inquiring, experimental attitude, ever hospitable toward new facts: and a generous and democratic spirit."

This book, like so many others that have appeared in this field during the past two or three years, adds little to our knowledge of facts or theories, but it has the merit of being both accurate and fair as to its matter and clear and convincing in form.

CARROLL W. DOTEN.

Massachusetts Institute of Technology.

NEW BOOKS

ATHEARN, W. S. *The Malden survey; a report on the church plants of a typical city; showing the use of the interchurch world movement score card and standards for rating city church plants.* (New York: Interchurch World Movement. 1920.)

BENGE, E. J. *Standard practice in personnel work.* (New York: H. W. Wilson. 1921. Pp. 286. \$3.)

BECK, J. M. *The passing of the new freedom.* (New York: Doran. 1920. Pp. xi, 169.)

BINDER, R. M. *Health and social progress.* (New York: Prentice-Hall. 1920. Pp. 300. \$3.)

BONDAM, R. *Le mal social et ses remèdes.* (The Hague: Author, 175 Van Tlingelandstraat. 1920. Pp. xiii, 381.)

The author has French conditions in mind and writes largely from the French standpoint. However, he presents facts and statistics for other countries as well. For example, he states that 2 per cent of the population of the United States own 60 per cent of the wealth and that 65 per cent own only 5 per cent. Although he does not give the authority for this statement he generally gives credit to the various authors whom he quotes. He presents the causes of poverty in a manner usual to writers on this subject and places considerable emphasis on ignorance, the subjection of the masses, and the tendency toward over-population among them. He gives considerable weight to the value of environment as a force capable of suppressing or developing the individual. He would improve conditions by promoting an educational program and by bringing about the physical and moral improvement of the people.

The remedy is an evolutionary process. Less stress should be placed on production than on the conservation of the human elements. Through the development of better opportunities for all, education and other methods of promoting "capillary attraction" that proportion of the population

which constitutes an asset to society is constantly increasing at the expense of those who paralyze or resist effort. There is need of bringing about a measurable redistribution of wealth. Something can be done by placing certain limitations on the right of inheritance. The public debt also presents a serious problem and the author therefore discusses the possibility of shifting part of the burden from the shoulders of the poor and of abandoning the payment of part of the debt itself. Misery is a pressing problem and we must not delude ourselves with the notion that civilization cannot perish. The facts of history are too clear to justify such optimism.

GEORGE B. MANGOLD.

CHAPIN, F. S. *Field work and social research*. (New York: Century Co. 1920. Pp. 224. \$1.75.)

COMERFORD, F. *The new world*. (New York: Appleton. 1920. Pp. 364.)

Europe, stricken, impoverished, disappointed, is restless and receptive to radical ideas. The trend toward bolshevism can be combatted only by truth and social justice. Intervention in Russia has failed. Force only increases unrest. Governments, workingmen, and employers should coöperate in building the new world. Property rights must be made safe and human rights must be made secure.

G. L. A.

DEALEY, J. Q. *Sociology: its development and applications*. (New York: Appleton. 1920. Pp. xv, 547.)

FELD, R. C. *Humanizing industry*. (New York: Dutton. 1920. Pp. 390.)

FOSDICK, R. B. *Crime in America and the police*. (New York: Century Co. 1920. Pp. 57.)

FULLER, E. *The Mexican housing problem in Los Angeles*. (Los Angeles: Univ. Southern California. 1920. Pp. 11. 15c.)

GIDE, C. *Les institutions de progrès social*. Fifth edition, enlarged and revised. (Paris: Tenin. 1920. Pp. vii, 612.)

HARRISON, S. M. *The Springfield survey; a study of social conditions in an American city*. (New York: Russell Sage Foundation. 1920. Pp. 439. \$2.50.)

HARTLEY, C. G. *Sex education and national health*. (London: Fabian Soc. 1920. 6s.)

HERICOURT, J. *The social diseases: tuberculosis, syphilis, alcoholism, sterility*. Translated and with final chapter by BERNARD MIALL. (New York: Dutton. 1920. Pp. 10, 246. \$2.50.)

HICKS, F. C. *The new world order, international organization, international law, international coöperation*. (Garden City, N. Y.: Doubleday, Page. 1920. Pp. 496.)

HOBSON, J. A. *The morals of economic internationalism*. (Boston: Houghton Mifflin. 1920. Pp. 69. \$1.)

INGE, W. R. *The idea of progress*. (Oxford: Clarendon Press. 1920. Pp. 34. 2s.)

JEUDWINE, J. W. *Observations on English criminal law and procedure*. (London: King. 1920. Pp. 99. 2s. 6d.)

KELLY, J. W. *Training industrial workers*. (New York: Ronald. 1920. Pp. xxi, 487.)

LAPAGE, C. P. *Feeble-mindedness in children of school age; with an appendix on treatment and training*, by Mary Dendy. Second edition. (New York: Longmans. 1920. Pp. 309. \$4.)

McDOUGALL, W. *The group mind, a sketch of the principles of collective psychology with some attempt to apply them to the interpretation of national life and character*. (Cambridge, Eng.: University Press. 1920. Pp. xvi, 304. 21s.)

MANGOLD, G. B. *Social reform in Missouri, 1820-1920*. (Columbia: State Hist. Soc. 1920. Pp. 213.)

MASON, A. L. *Guiding principles for American voters. An introduction to the study of elementary Americanism*. (Indianapolis: Bobbs-Merrill Co. 1920. Pp. 287.)

There are chapters on The burden of taxes, The menace of socialism, Government ownership and operation, Organization of business and labor, and Money, deposits, prices, and prosperity.

MYERS, C. S. *Mind and work*. (London: Fabian Soc. 1920. 6s.)

PATRICK, G. T. W. *The psychology of social reconstruction*. (Boston: Houghton Mifflin. 1920. Pp. ix, 273. \$2.)

"Perhaps one of the most distressing signs of the times is the increase of inefficiency—at the very moment when we have laid so much stress upon efficiency. . . . With our increase of wealth on the one hand and on the other the decrease of vitality or vital efficiency, our glittering civilization may be near the fate of other civilizations of the past." There is something vexingly paradoxical about the phrases "industrial progress" and "natural culture," as we have understood them. Economics and psychology in their recent partnership are recognizing the fallacy of many of our existing theories—that of capital, that the route to efficiency is by the adjustment of the man to the machine; that of labor, that Utopia lies in shorter hours and increased pay, or in equal distribution of wealth. Under the guidance of Veblen, Parker, Mitchell, and Tead, economics is coming to regard man not only as a motor mechanism, not only as an intellectual mind, but also as a human being motivated by a powerful group of instincts. We can have true efficiency, true civilization, only when the whole man is active, when we find useful and wholesome outlets for these instinctive forces.

With the clearness, sanity, and capacity to interest which characterize also his previous volume, *The Psychology of Relaxation*, Professor Patrick discusses the psychological factors in social reconstruction, the psychology of work, our centrifugal society, social discipline, and the next step in applied science. His book presents such an admirable interpretation of the psychology of Freud, Adler, and Trotter, as applied to war, labor, government, and morals, that it cannot fail to be an integral part of the working philosophy of all its readers.

CHARLES LEONARD STONE.

POHLE, L. *Die Wohnungsfrage*. (Leipzig: Göschen. 1920. Pp. 140.)

- PRINCE, S. H. *Catastrophe and social change. Based upon a sociological study of the Halifax disaster.* Columbia University Studies in history, economics and public law, XCIV, 1. (New York: Longmans. 1920. Pp. 151.)
- REDFERN, P. *The consumer's place in society.* (Manchester: Coöperative Union. 1920. Pp. 107. 2s. 6d.)
- ROUTZAHN, M. S. *Traveling publicity campaigns: educational tours of railroad trains and motor vehicles.* (New York: Russell Sage Foundation. 1920. Pp. xi, 151. \$1.50.)
- RYAN, J. A. and HUSSLEIN, J. C. *The Church and labor.* Prepared and edited for the department of social action of the National Catholic Welfare Council. (New York: Macmillan. 1920. Pp. 305. \$3.75.)
- SHEFFIELD, A. E. *The social case history; its construction and content.* (New York: Russell Sage Foundation. 1920. Pp. 227. \$1.)
- SMYTH, W. H. *Technocracy: national industrial management.* (Berkeley, Calif.: Sather Gate Bookshop. 1920. Pp. 40.)
- THOMAS, E. *Industry, emotion and unrest.* (New York: Harcourt, Brace, and Howe. 1920. Pp. 255. \$1.75.)
- THOMPSON, F. V. *The schooling of the immigrant.* (New York: Harper. 1920. \$2.)
- American foundations.* (New York: Russell Sage Foundation Library. 1920. Pp. 11.)
A revised edition of the bibliography prepared in 1915 of organizations for social welfare.
- The child-welfare special. A suggested method of reaching rural communities.* (Washington: Children's Bureau. 1920. Pp. 19.)
- Children's year. A brief summary of work done and suggestions for follow-up work.* (Washington: Children's Bureau. 1920. Pp. 20.)
- Complete report of the national convention of the Society of Industrial Engineers, held in Pittsburgh, Nov., 1920.* (Chicago: G. C. Dent, 327 S. La Salle St. 1920. \$2.50.)
- Industrial opportunities and training for women and girls.* Bulletin of the Women's Bureau, no. 12. (Washington: Supt. Docs. 1920. Pp. 48.)
- Investigation of the housing and rental situation in Minnesota.* (St. Paul: State Dept. Agri. 1920. Pp. 19.)
- Proceedings of the 1920 meeting of the national conference of catholic charities.* (Washington: Secretary, 324 Indiana Ave. N. W. 1920. \$3.)
- Report of committee on methods of coöperation.* (New York: Federal Council of Churches, 105 East 22d St. 1920.)
- A study of rural conditions in Ohio.* (Columbus: Supt. of Public Instruction. 1920. Pp. 175.)
- A summary of juvenile-court legislation in the United States.* (Washington: Children's Bureau. 1920. Pp. 110.)

Twelfth annual report, 1919-1920. (London: Eugenics Education Society, 11 Lincoln's Inn Fields. 1920. Pp. 19.)

Insurance and Pensions

NEW BOOKS

ALEXANDER, W. *How to sell insurance; a practical guide for the life insurance salesman.* (New York: Spectator Co. 1920. Pp. 146. \$2.)

HOFFMAN, F. L. *National health insurance and the medical profession.* (Newark, N. J.: Prudential Ins. Co. 1920. Pp. 122.)

LENGYEL, S. *Die Bilanzen der Versicherungs-Unternehmen. Eine Bilanzlehre und eine Bilanzanalyse.* (Berlin: Mittler. 1920. Pp. 160. 25 M.)

RUMSEY, D. *A new standard fire insurance policy of the state of New York, in effect January 1, 1918, as compared with the original standard policy.* (New York: Ins. Soc. 1920. Pp. 30.)

SCHMITTMANN, B. *Führer durch die deutsche Sozialversicherung in ihrer Gestaltung nach dem Kriege.* (Dusseldorf: Schwann. 1920. Pp. xii, 191. 10 M.)

Deutscher Verein für Versicherungs-Wissenschaft zu Berlin. (Berlin: Mittler. 1920. Pp. 12.)

Hail insurance on farm crops in the United States. Agricultural Department bulletin 912. (Washington: Supt. Docs. 1920. 10c.)

System of compensation for injuries to workmen. Report of the departmental committee. (London: H. M. Stationery Office. 1920. 1s.)

Tentative recommendations of the pension laws commission. (Milwaukee. 1920. Pp. 67.)

Workmen's compensation law of the state of Georgia, effective March 1, 1921; Louisiana, with amendments, August 1920. (New York: F. R. Jones, 80 Maiden Lane. 1920. Pp. 36; 36. 50c. each.)

Workmen's compensation laws; decisions with reference to negligence and compensation cases annotated: California, Massachusetts, New Jersey, New York, Ohio, Pennsylvania. (Chicago: Callaghan & Co. 1920.)

Socialism and Co-operative Enterprises

NEW BOOKS

BURNS, C. D. *Principles of revolution.* (London: Allen & Unwin. 1920. 5s.)

DIETZEL, H. *Beiträge zur Geschichte des Sozialismus und Kommunismus.* (Essen: Baedeker. 1920. Pp. 139.)

EMMOTT, LORD. *Nationalisation of industries: a criticism.* (London: T. Fisher Unwin. 1920. Pp. 78. 3s. 6d.)

FIELD, G. C. *Guild socialism.* (London: Wells, Gardner, Darton & Co. 1920. 5s.)

FLANAGAN, J. A. *Wholesale coöperation in Scotland.* (Glasgow: Coöperative Wholesale. 1920. Pp. xiv, 478.)

- GIDE, C. *Des institutions en vue de la transformation ou de l'abolition du salariat. Twelve lessons given in May-June, 1919, to American students.* (Paris: Marcel Giard & Cie. 1920. Pp. 111.)
- HILLQUIT, M. *Present-day socialism.* (New York: Rand School of Social Science. 1920. Pp. 84. 50c.)
- HIRSCH, M. *An analysis of the proposals and conceptions of socialism.* (New York: Huebsch. 1920. Pp. 59. 50c.)
- KELSEN, H. *Sozialismus und Staat. Eine Untersuchung der politischen Theorie des Marxismus.* (Leipzig: Hirschfeld. 1920. Pp. 129.)
- LANGE, C. L. *Histoire de l'internationalisme. I. Jusqu' à la paix de Westphalie (1648).* Publications de l'Institut Nobel Norvégien, IV. (Munich: Duncker & Humblot. 1920. Pp. 517. 75 M.)
- LORIA, A. *Karl Marx.* Authorized translation from the Italian with a foreword by E. & C. PAUL. (New York: Thomas Seltzer. 1920. Pp. 163.)
- MCGOWAN, R. A. *Bolshevism in Russia and America.* (New York: Paulist Press. 1920. Pp. 45. 5c.)
- MELLOR, W. *Direct action.* (London: Leonard Parsons, Ltd. 1920.)
- MILHAUD, E. *The march towards socialism.* (London: Leonard Parsons, Ltd. 1920. 8s. 6d.)
- MITSCHERLICH, W. *Der Nationalismus Westeuropas.* (Leipzig: Hirschfeld. 1920. 31.20 M.)
- MONEY, L. C. *The triumph of nationalisation.* (London: Cassell. 1920. Pp. 276. 7s. 6d.)
- NICHOLSON, J. S. *The revival of Marxism.* (London: Murray. 1920. Pp. 145.)
- ODENBREIT, B. *Die vergleichende Wirtschaftstheorie bei Karl Marx.* (Essen: Baedeker. 1920. Pp. 98. 5.20 M.)
- PITT-RIVERS, G. *The world significance of the Russian revolution.* (London: Basil Blackwell. 1920. 2s.)
- RUSSELL, B. *Bolshevism: practice and theory.* (New York: Harcourt, Brace and Howe. 1920. Pp. 192. \$2.)
- SAN-LAVILLE. *Socialisme et propriété.* (Paris: Alcan. 1920. 6 fr.)
- SNOWDEN, MRS. P. *Through Bolshevik Russia.* (London: Cassell. 1920. 5s.)
- STAMMLER, R. *Sozialismus und Christentum.* (Leipzig: Felix Meiner. 1920. 25 M.)
- TODD, A. M. *Relation of public ownership to democracy and social justice.* (Chicago: Public Ownership League of America. 1920. Pp. 29. 50c.)
- TUCKER, I. ST. J. *Now it must be done.* (Chicago: Socialist Party of U. S. 1920. Pp. 37.)
- VON TYSZKA, K. *Die Sozialisierung des Wirtschaftslebens.* (Jena: Fischer. 1919. Pp. 79. 3.50 M.)

WALLING, W. E. *Sovietism, the A B C of Russian bolshevism according to the bolshevists*. (New York: Dutton. 1920. Pp. 220. \$2.)

Quotations from bolshevist writers, particularly Lenin and Gorky, are used by Mr. Walling to indict bolshevism in the words of its own apostles. The idea is good, but with equal justice it would be possible to select other quotations from the same writers which would lead to other conclusions.

In the latter half of the book the author abandons his thesis and heaps bitter denunciation not only upon American radicals, but upon the liberal magazines and writers who have been less severe than himself in their criticism of the soviet régime.

G. L. ARNER.

WILBRANDT, R. *Sozialismus*. (Jena: Eugen Diederichs. 1919. Pp. 338. 15 M.)

WOLFF, H. H. *Coöperation in India*. (London: W. Thacker & Co. 1919. Pp. 352.)

ZVORIKINE, N. *La révolution et le bolchévisme en Russie*. (Paris: Perrin. 1920. Pp. xii, 310.)

List of references on coöperative stores. (Washington: Library of Congress. 1920. Pp. 12, typewritten.)

A political guide for the workers. Socialist party campaign book, 1920, prepared by the department of labor and research, Rand School of Social Science. (Chicago: Socialist Party. 1920. Pp. 183.)

Proceedings of the judiciary committee of the assembly of the state of New York in the matter of the investigation as to the qualifications of certain members of the assembly. Legislative document no. 5. (Albany. 1920. Pp. 2807; 575, 58.)

Thirteenth annual report of Pasadena's municipal lighting works department, 1919-1920. How your dollars have been spent. (Pasadena: Commissioner of Public Works. 1920. Pp. 31.)

Thirty-fourth report, 1919. (London: Labour Co-partnership Assoc. 1920. Pp. 47.)

Report of annual meeting, 1920. (London: Labour Co-partnership Assoc. 1920. Pp. 30. 6d.)

Statistics and Its Methods

Profits, Wages, and Prices. By DAVID FRIDAY. (New York: Harcourt, Brace, and Howe. 1920. Pp. iv, 256.)

Professor Friday has essayed the very difficult task not only of setting forth the chief statistical facts concerning the distribution of the value product of the industries of the United States among the different groups of productive agents and the changes brought about in this distribution by the events connected with the great war, but also of appraising the merits, demerits, and ultimate social results of present legal and social arrangements affecting this distribution. Some of the

statistics are open to question: the record on page 15 shows the net income of corporations for the years 1914 to 1917 to be larger than is actually the case, the error arising from the fact that the total of "net corporate income," as recorded in the reports of the Commissioner of Internal Revenue, includes for those years the income of both parent and subsidiary corporations, since each corporation was compelled by law to report separately. This situation resulted often in compelling the holding company to pay taxes upon virtually the same income upon which a subsidiary corporation had already been taxed. This duplication did not occur in the earlier years under the excise tax law; hence the totals of income for the earlier and later years are incomparable. The error of comparing these figures did not, however, originate with Professor Friday, for the supposed net incomes are presented without comment as a continuous column in the official government report. Unfortunately, however, this error affects most of the comparisons of corporate earnings for different years and invalidates to a degree some of the conclusions drawn.

An inaccuracy of less importance is found on page 27, where Professor Friday quotes the Agricultural Department figures for the total value of farm products, without noting the fact that since the value of crops fed to livestock is included in the totals, these totals represent gross rather than net values. The failure to call attention to this peculiarity of the data is, however, a matter of little consequence, for the figures are used only for a comparison of the different years, a purpose for which they are presumably perfectly satisfactory.

No matter how painstaking the statistician, oversights of the kind just mentioned are practically inevitable when figures are dealt with on any considerable scale; hence they cannot justly be considered to indicate any lack of care on the part of the investigator. Any adverse criticism of the purely statistical part of Professor Friday's work must rest on the grounds that the form of presentation might be improved. The reader would have been more likely to obtain the correct impression from the facts presented if all values had been reduced to equivalents of some base year by dividing by a price index, and if the principal results had been shown graphically as well as in tabular form.

But, while there may be room for improvement in the form of presentation, it is nevertheless true that the book is one of the most valuable compendiums yet published covering statistics in this field. It sets forth in a very readable, concise, and definite style, the salient facts concerning profits, wages, and prices; and the accuracy of most of the figures and of the immediate conclusions drawn therefrom apparently cannot be seriously questioned. On the other hand, it seems certain that some of the problems might have been further clarified by a more

searching analysis. In most parts of the book, for example, the fluctuations of the business cycle have been ignored and phenomena are often ascribed to purely fortuitous circumstances when the true explanation seems to be that they were the perfectly normal results of cyclical influences.

But even when the business cycle is recognized as an important characteristic of industry, it appears that insufficient attention has been bestowed upon the actual shape of the curve.

In chapter V, the term "capital" is used interchangeably in several different senses, sometimes meaning "capital goods," sometimes loanable funds, and sometimes the resources of an enterprise. This confusion is entangled with an apparent belief that individual savings are practically identical with additions to national wealth. That this last assumption is not true is evident when we consider the great increase in private saving connected with financing the war, which saving, however, has certainly not resulted in any equivalent increase in national wealth.

This analysis of the data seems to the reviewer to be coupled occasionally with a tendency to base conclusions upon insufficient evidence. On page 135, for example, it is stated that the increase of prices since 1919 is ascribable to growing inefficiency of labor, but only vague impressions of employers are presented as evidence that the productivity of labor in general has fallen off to anything like the supposed extent of 40 per cent. The whole explanation of the reason for the rise in prices from 1914 to 1920 is characterized by this same lack of evidence. Apparently, we are furthermore asked to accept the doubtful doctrine that the price level is dependent upon cost of production and that it tends, through inertia, to continue upon any plane upon which events happen to place it (cf. p. 140). At no place is cognizance taken of the important truth that a rise of prices in one field, by using up the income of purchasers, tends to produce an equal fall of prices in some other field. Similarly, sales of Liberty bonds by the holders are assumed to be equivalent to increased national demands for consumption goods, the fact being overlooked that purchasers of the bonds were probably curtailing consumption at the same time and to the same extent that the sellers were consuming more freely.

In defending the excess profits tax, Professor Friday ignores entirely the important question as to whether the levying of any kind of taxes upon corporations is sound economic procedure. In dealing with the question of bettering the economic condition of the working classes, he almost forgets the population problem which, in the reviewer's opinion, is the crux of the whole matter. He proposes that the Government insure to all entrepreneurs a minimum return on their investment, but fails to mention the danger of thus continuing for a longer time than

necessary the operations of all kinds of superfluous or unprofitable enterprises.

The general impression gained from an examination of the theories set forth is that they are brilliantly suggestive but that a number of them can only be established by the presentation of more complete and convincing arguments.

As a handbook of facts, the volume is certainly worthy of the careful study of all persons interested in the question of the existing division of the industrial product. Most of the leading theses of the book are supported by such masses of evidence and argument that the reader is virtually compelled to accept the author's conclusions. He demonstrates, for example, the importance of the outlook for business enterprise as a factor affecting interest rates; the necessity of allowing high enough rates to public utilities to enable them to secure funds for extensions of plant; the small effect that the excess profits tax has in discouraging enterprise and the absolute impossibility that it is a prime factor in causing high prices; and, finally, the fact that labor already receives such a preponderant share in the value product of the great industrial fields of manufacturing, mining, and transportation, that the condition of the laboring class can at best be but slightly improved by any possible redistribution of the present product.

WILLFORD I. KING.

NEW BOOKS

- BOWLEY, A. L. *The change in the distribution of the national income, 1880-1913.* (Oxford: Oxford University Press. 1920. Pp. 27.)
- . *Elements of statistics.* Fourth edition. (London: King. 1920. Pp. 472. 24s.)
- HESSE, A. *Gewerbestatistik.* Third edition, revised. (Jena: Fischer. 1920. Pp. xiii, 470. 18 M.)
- KAUFMANN. *Theorie und Methoden der Statistik.* (Tubingen: Mohr. 1920. Pp. 540.)
- SAITZEW, M. *Die Motorenstatistik. Ihre Methoden und Ergebnisse. Eine Studie aus dem Gebiete der internationalen Wirtschaftsstatistik.* (Zurich: Rascher & Cie. 1918. Pp. vii, 275.)
- STAMP, J. *British incomes and property: the application of official statistics to economic problems.* Second edition. (London: King. 1920. 15s.)
- TRENCH, C. S. J. and LUTY, B. E. V. *Metal statistics, 1920.* (New York: American Metal Market Co. 1920. Pp. 528. \$1.)
- Annuaire international de statistique agricole 1817 et 1918.* (Rome: L'Institut International d'Agriculture. 1920. Pp. 747. 15 frs.)
- Municipal statistics. Report of cities and towns having a population of 10,000 and over.* (Ottawa: Bureau of Statistics. 1920. Pp. 57.)

DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

The Bureau of Foreign and Domestic Commerce has recently published the following:

Special Agents Series:

- No. 196, *Norway: Commercial and Industrial Handbook*, by W. A. Bengston (Washington, 1920, pp. 58). This gives a description of various phases of Norwegian economic life.
- No. 197, *Electrical Goods in Spain*, by P. S. Smith (pp. 178), which contains chapters on general features of the Spanish market, central stations, hydroelectric plants, electrification of steam railways, and telephones.
- No. 199, *Paraguay. A Commercial Handbook*, by W. L. Schurz (pp. 195).
- No. 200, *Hides and Leather in France*, by N. Hertz (pp. 159), which contains a map showing cities and towns of interest to the shoe and leather industry.
- No. 202, *Spanish Finance and Trade*, by A. N. Young (pp. 199); this is of special value to the student of foreign economic conditions. Part I deals with the monetary and banking system; part II, financing trade with Spain; part III, investments; part IV, public finance.
- No. 203, *Textile Markets of Brazil*, by L. S. Garry (pp. 48).
- No. 204, *Industrial Machinery in France and Belgium*, by C. P. Wood (pp. 61).

Miscellaneous Series:

- No. 87, *Import and Export Schedules of Spain* (1920, pp. 60).
- No. 92, *Stowage of Ship Cargoes*, by T. R. Taylor (pp. 350).
- No. 106, *Trade of the United States with the World, 1918-1919*, Part I, *Imports* (pp. 103).

The Federal Trade Commission has recently published a report on *Commercial Wheat, Flour, Milling* (Washington, Sept. 15, 1920, pp. 118), a general survey of the production and consumption of wheat flour in the United States. Chapter 2 deals with costs, prices, and profits. There is an interesting map showing the wheat flour production and distribution areas. This commission has also made a report on *Sugar Supply and Prices* (Nov. 15, 1920, pp. 205).

The Senate Select Committee on Reconstruction and Production has submitted its preliminary report, December 14, 1920 (Report No. 666, 66 Cong., 3 Sess., pp. 11). This committee, it is understood, will present several bills: one to direct long-term deposits of national banks into long-term uses at the discretion of the governors of the Federal Reserve Board; one

to authorize the establishment of a home loan bank; one to amend the postal savings law to pay interest quarterly; and one to get monthly figures from the coal industry. The hearings before this committee, dealing with *Coal and Transportation*, have been printed (Washington, 1921, pp. 769).

The *Report of the Chief of the Bureau of Markets* of the Department of Agriculture (Washington, Oct. 9, 1920, pp. 37) gives an account of the investigations which have been made during the past year and those now in progress. From this same bureau has been received a typewritten copy of *History of the Bureau of Markets*, by Caroline B. Sherman (pp. 11).

The subject of marketing is also touched upon in the *Report of the Secretary of Agriculture for 1920* (pp. 72).

Some *Extracts from the Joint Hearings before the Committees on Agriculture and Forestry* on S. J. Resolution 212, directing the War Finance Corporation of the Federal Reserve Board to take action for the relief of depression in the agricultural sections of the country, have been printed as a small pamphlet (Washington, pp. 14).

The *Tenth Annual Report, 1920*, of the Bureau of Mines (Washington, pp. 149) contains interesting data with regard to a government fuel yard.

The United States Geological Survey has printed a preliminary summary of the *Mineral Resources of the United States in 1919* (Washington, 1920, pp. 128).

The Bureau of the Census has distributed the final bulletins on agriculture of the Fourteenth Census for *New Hampshire* (pp. 21), *Vermont* (pp. 18), *Rhode Island* (pp. 14), *Delaware* (pp. 15); and a bulletin on *Number of Farms by States and Counties, 1920, 1910, 1900* (pp. 29).

The Department of Internal Affairs of Pennsylvania has brought together in a single volume its *Report on the Productive Industries of Pennsylvania for 1916-1919* (Harrisburg, 1920, pp. 878).

Bulletin No. 11 of the State Department of Agriculture of Minnesota discusses *Marketing Problems of Minnesota Farmers*, by H. J. Hughes, Director of Markets (St. Paul, Oct. 14, 1920, pp. 23).

The *Statistical Report of the California State Board of Agriculture for 1919* contains a summary of the population and agricultural production of that state (Sacramento, pp. 201).

The United States Tariff Commission has issued in Tariff Information Series, No. 16, *Refined Sugar: Cost, Prices, and Profits* (pp. 42) illustrated by charts; No. 21, *Industrial Readjustments of Certain Mineral Industries Affected by the War* (pp. 320), containing many maps and statistical tables; also a substantial volume on *Statistics of Imports and Duties, 1908 to 1918 Inclusive*, carefully indexed (Washington, 1920, pp. 1096).

Public Utilities

There have been received:

Thirty-fourth Annual Report of the Interstate Commerce Commission (Dec. 1, 1920, pp. 205).

Tenth Annual Report of the Statistics of Express Companies in the United States, 1919, published by the Interstate Commerce Commission (Washington, 1920, pp. 12).

Seventh Annual Report of the Public Service Commission of Massachusetts, 1919, Part I (Boston, pp. lv, 314).

Eighth Annual Report of the Public Utilities Commission of Rhode Island, 1919 (Providence, 1920, pp. 134).

Labor

The federal Bureau of Labor Statistics has issued:

No. 274, *Union Scale of Wages and Hours of Labor, May 15, 1919* (Washington, Sept., 1920, pp. 281).

No. 267, *Anthrax as an Occupational Disease*, by J. B. Andrews (July, 1920, pp. 186). This is a revision of Bulletin 205 originally published in 1917.

The Women's Bureau of the United States Department of Labor has prepared a bulletin on *The New Position of Women in American Industry* (Washington, 1920, pp. 158). Section 2 is entitled "Statistics of women's industrial employment during and after the war"; and section 3, "Results of the substitution of women on men's work during and after the war." There are a number of illustrations.

Labor reports that have been received are as follows:

Second Report on Wages of Women Employed in Paper Box Factories in Massachusetts (Boston, Mass. Dept. Labor, 1920, pp. 53).

Tenth Annual Report on Union Scale of Wages and Hours of Labor in Massachusetts, 1919 (Boston, July, 1920, pp. 146).

Annual Report of the Industrial Commission of New York, 1919 (Albany, 1920, pp. 330).

New York State Industrial Code, 1920 (Albany, Indus. Comm., pp. 48).

Labor Laws of the Commonwealth of Virginia (Richmond, Comm. of Labor, 1920, pp. 129).

Twenty-third Annual Report of the Bureau of Labor and Industrial Statistics of Virginia, 1920 (Richmond, pp. 139).

Labor Laws of West Virginia (Charleston, 1920, pp. 86).

Eighth Annual Report of the Commissioner of Commerce and Labor of Georgia, 1919 (Atlanta, 1920, pp. 89).

Minimum Wage Act of Wisconsin (Madison, Indus. Com. of Wis., pp. 23).

General Report of the Minister of Public Works and Labour of the Province of Quebec (Quebec, 1920, pp. 198).

Money, Prices, Credit, and Banking

The Federal Reserve Board has prepared a new compilation of *Regulations*, series of 1920 (Oct., 1920, pp. 39).

Attention should be directed to the monthly bulletins which are now being published by all of the federal reserve banks. These contain much fresh material of economic interest in the respective districts.

The Department of Foreign Information of the Bankers Trust Company, New York, in its bulletin for January 17, 1920, presents the official, detailed outline of the international credits scheme recommended to the League of Nations by the Provisional Economic and Financial Committee of the Council of the League.

From the American Acceptance Council have been received a number of pamphlets: *American Bankers Acceptances and Foreign Trade*, by F. I. Kent; *Practical Problems in the Development of Bankers Acceptance*; *Federal Reserve Board Regulations Relating to Acceptances (Series of 1920)*; *Bankers Acceptances: Principles and Practices*, Chapters 1 and 2; *Elements of Trade Acceptance Practice*, by R. H. Treman; *The Banker and Trade Acceptances*, by George Woodruff (New York, 111 Broadway).

Attention should also be called to the *Acceptance Bulletin*, published by this organization. It appears monthly and is now beginning its third year.

Recent reports dealing with banking are the following:

Thirteenth Annual Report of the Bank Commissioner of Rhode Island, 1920 (Providence, pp. 229).

Annual Report of the Superintendent of Banks Relative to Savings Banks, Trust Companies, etc., 1919 (Albany, 1920, pp. 752).

Nineteenth Annual Report of the Commissioner of Banking of West Virginia, 1919 (Charleston, pp. 107).

The Banking Law of the State of Georgia Effective January 1, 1920 (T. R. Bennett, Supt. of Banks, pp. 77).

Proceedings of the Forty-first Annual Meeting of the Building Association League of Illinois (Chicago, Am. Bldg. Assoc. News Co., 1920, pp. 147).

Fifteenth Annual Report of the Bureau of Banking of Idaho, 1919 (Boise, 1920, pp. 79).

Public Finance

Recent federal reports are:

Annual Report of the Secretary of the Treasury on the State of the Finances, 1920 (Washington, pp. 870). This contains the statement of Secretary Houston and Assistant Secretary Leffingwell made March 11, 1920, on the soldiers' bonus proposal.

Annual Report of the Commissioner of Internal Revenue, 1920 (Washington, pp. 230).

Annual Report of the Director of the Mint, 1920, including the report on the production of the precious metals, 1919 (Washington, 1920, pp. 309).

The Department of Foreign Information of the Bankers Trust Company has prepared a leaflet on *Income Taxation in Great Britain and the United States*, illustrated by three graphs.

The Continental Insurance Company, New York, has for circulation a pamphlet on *British and American Economic and Excess Profits Taxes Compared*, by Professor Carl C. Plehn (New York, 80 Maiden Lane).

The National Association of Credit Men has prepared a pamphlet on *The Undistributed Earnings Tax* (New York, 41 Park Row, Dec., 1920, pp. 40).

The Old Colony Trust Company, Boston, has made a reprint of the *Massachusetts Income Tax Law*.

The Irving National Bank (New York) in its pamphlet for January, 1921, has compiled *Practical Questions and Answers on the Federal Tax Laws* (pp. 96).

W. B. Hibbs and Company has prepared a series of circulars on: *Bonds of the Kingdom of Italy; Bonds of the Government of the Dominion of Canada; Bonds of the Government of the United States of America; Bonds of the Governments of the French Republic and the Kingdom of Belgium; and Bonds of the Government of the United Kingdom of Great Britain and Ireland* (Washington, Hibbs Bldg., 1920).

The following volumes have been received:

Information Relative to the Assessment and Collection of Taxes, Connecticut, 1920 (Hartford, pp. 48).

Annual Report of the State Tax Commission of New York, 1919 (Albany, 1920, pp. 514).

Laws Affecting the Taxation of the Session of 1920, New Jersey (Trenton, State Board of Taxation and Assessment (pp. 39).

Proceedings of the Seventh Biennial Conference Convention of the Tax Commission and County Assessors of the State of Kansas, held February 5-6, 1920 (Topeka, pp. 78).

PERIODICALS

The REVIEW is indebted to Robert F. Foerster for abstracts of articles in Italian periodicals, and to R. S. Saby for abstracts of articles in Danish and Swedish periodicals.

Theory

(Abstracts by Walton H. Hamilton)

- BELL, H. *High wages: their cause and effect.* Contemp. Rev., Dec., 1920. Pp. 16. High wages are dependent upon large production which is contingent upon a great increase in capital. This must be secured through savings without interference with "leisure and the amenities of life."
- DEVAN, W. L. *The social teaching of St. Thomas Aquinas.* Const. Rev., Sept., 1920. Pp. 18. A review of Aquinas' theories of property, interest, and social justice. One was entitled to "enough to keep himself in good standing in the class to which he belonged." The "Surplus" was to be devoted to the common good. "His static conception of society" had no place for progress.
- BOWLEY, A. L. *The theoretical effects of rationing upon prices.* Econ. Journ., Sept., 1920. Pp. 8. A mathematical examination of various cases of the effects upon prices of limitations upon demand brought about by compulsory rationing.
- BOGART, E. L. *Economic organization for war.* Am. Pol. Sci. Rev., Nov., 1920. Pp. 20. A consideration of the nature of the problem of a quick adjustment to a single military end of an industrial system organized on individualistic principles.
- CARVER, T. N. *Ross's "Principles of Sociology."* Quart. Journ. Econ., Nov., 1920. Pp. 16. A critically appreciative review.
- COOLEY, C. H., *Reflections upon the sociology of Herbert Spencer.* Am. Journ. Soc., Sept., 1920. Pp. 17. Spencer lacked the conception of a "social process" which "absorbs individuals into its life, conforming them to its requirements, and at the same time developing their individuality." On the contrary his individuals unite into a differentiated and coördinated society.
- DICKINSON, Z. C. *Roche-Agusso's psychologie économique chez les Anglo-Américains.* Quart. Journ. Econ., Nov., 1920. Pp. 5. A review of a systematic treatment of marginal economics as developed in England and America.
- DUNLAP, K. *A social need for scientific psychology.* Sci. Mo., Dec., 1920. Pp. 16. Our badly needed social psychology is being very imperfectly made, not by psychologists, but "by politicians and independent thinkers, like Bertrand Russell and Bernard Shaw."
- EDGEWORTH, F. Y. *Professor Cassel's treatise.* Econ. Journ., Sept., 1921. A review of Cassel's *Theoretische Sozialökonomie* and the phenomena of which it treats as "a sort of scientific poem."
- HIGGINS, H. B. *A new province for law and order.* III. Harvard Law Rev., Oct., 1920. Pp. 32. The last of a series of articles upon the work of the Australian Commonwealth Court of Conciliation and Arbitration in reducing industrial relations to terms of a legal system.
- HOBSON, J. A. *The new industrial revolution.* Contemp. Rev., Nov., 1920. Pp. 8. The new technique can give us abundance. Its utilization will entail a vast amount of monotonous labor and under the dominance of business enterprise its

product cannot be disposed of. The conditions of its utilization are an equitable distribution of the incidence of monotonous toil and a chance in business control.

LITTLE, H. *The economist and the workshop*. Fortn. Rev., Oct., 1930. Pp. 11. To persuade the workman to increase production the economist must show quite specifically how a restriction of output does not prolong his employment or he must persuade "the masters" to guarantee him against unemployment.

LLOYD, A. H. *The philosophy of Herbert Spencer*. Sci. Mo., Aug., 1920. Pp. 13. "Spencer's philosophy is an imprisoned biology." As such it is a step in advance of the eighteenth century "mechanicalism" which it succeeded.

LYMAN, E. W. *The ethics of the wages and profits system*. Intern. Journ. Ethics, Oct., 1930. Pp. 16. A criticism of the ethical implications of theories of wages and profits formulated by J. B. Clark and others.

MACAMEY, L. *The national wage position*. Nineteenth Cent., Nov., 1920. A discussion of issues involved in the conflict between theories of wages in terms of "competitive value of labor" and "the ability of the industry to pay." A statement of the use of accountancy as an instrument in wage determination.

MERRITT, W. G. *Social control and industrial strife*. Unpartisan Rev., Jan., 1921. Pp. 19. A plea for the preservation of the economic harmonies by short circuiting the activities of union leaders during strikes by the use of the injunction.

MONEY, L. C. *The misuse of ideas*. Contemp. Rev., Aug., 1920. Pp. 9. A study of the development and utilization of technique. "As long as commercialism is attached to manufacturing, as long as artistry waits upon shop keeping, and as long as captains of industry must be hucksters first and scientists afterwards, so long the common affairs of the world will remain neglected and scorned by the world's best men."

MONEY, L. C. *The national direction of industry*. Contemp. Rev., Oct., 1920. Pp. 8. "In war we got what we wanted by the national organization of industry." "In peace we resign ourselves to the ancient scramble which devotes itself . . . to individual gain."

MUMFORD, L. *The adolescence of reform*. Freeman, Dec. 1, 1930. Pp. 2. The humanization of industry, like the industrial revolution, will come from the individual efforts of many men. It cannot be authoritatively forced by the state.

MUMFORD, L. *Sociology and its prospects in Great Britain*. Athenaeum, Dec. 10, 1930. Pp. 2. "The task of sociology is to make social action depart from the technique of the politician and approach that of the engineer."

NIEBUHR, R. *The church and the industrial crisis*. Biblical World, Nov., 1930. Pp. 5. An appeal for a place for "sacrifice" among business motives.

ROBERTSON, D. H. *Mr. Cole's social theories*. Econ. Journ., Dec., 1930. Pp. 6. A review of *Chaos and Order in Industry*. Let Mr. Cole "try to discover why people not devoid of intelligence or faith still detect signs of seaworthiness in the old ship Private Enterprise." Then let him give us a book for the new times which is what *The Wealth of Nations* was "for the bad old times when production was for profit and not for use."

ROSENBERG, E. J. *The price system and social management*. Am. Journ. Soc., Sept., 1930. Pp. 14. The direction of industry towards social utility must be a matter of purpose. It cannot be left to the guidance of the price system. Social utility must have a place with profits in determining labor management.

- WATSON, F. *The significance of leisure*. Contemp. Rev., Aug., 1920. Pp. 8. "More true leisure might mean a higher quality of work all round if it were work of the type associated with thoughtfulness and reflection, and less with haste and speed."
- WOLFE, A. B. *Savers' surplus and the interest rate*. Quart. Journ. Econ., Nov., 1920. Pp. 35. A study of the sources of savings, of the psychology of saving, and of the magnitude and importance of the saver's surplus. The facts suggest scepticism about any theory based upon "hedonistic marginalism."
- WOLFE, A. B. *The teaching of economics again*. Journ. Pol. Econ., Nov., 1920. Pp. 19. A plea for getting down to the essential questions of what economics is all about, what its function in the curriculum is, and how it can be made to serve this function. A criticism of the discussion of teaching economics which moves on the level of details and administrative devices.
- YEALY, F. J. *A plan of industrial equity*. Catholic World, Dec., 1920. Pp. 7. "The way to greater industrial efficiency is the way of industrial democracy."
- The control of industry*. New Statesman, Dec. 11, 1920. Pp. 2. A discussion, in terms of the engineering industry, of changes in control necessary to secure harmonious personal relations which will prevent "a steady deterioration of productive efficiency."
- The problem of output*. New Statesman, Nov. 27, 1920. Pp. 2. A review of the economic theories implicit in the memorandum of the Federation of British Industries upon *Wages and Prices* and the reply by the Joint Labor Committee upon *The Cost of Living*.
- The right to work*. New Statesman, Dec. 4, 1920. Pp. 3. "Each industry so far as possible should carry the burden of its own unemployment." "The first charge upon every industry must be the maintenance of a reasonable standard of life of all the workers necessary for its conduct, whether constant full time work can be found for them or not."

Economic History (United States)

(Abstracts by Amelia C. Ford)

- BAHRET, J. L. *Growth of New York and suburbs since 1790*. Sci. Mo., Nov., 1920. Pp. 15. Presents tables and maps showing population changes, discusses the effect of various factors, and comments on the plan for setting New York off as a separate state.
- BOGART, E. L. *Economic organization for war*. Am. Pol. Sci. Rev., Nov., 1920. Pp. 20. Traces the gradual creation of government machinery to cope with the economic problems presented by the war; considers the net result of participation in the war will be a permanent enlargement of the functions of government.
- CALKINS, M. C. *The cutover country*. Survey, Nov. 27, 1920. Pp. 5. Tells of Wisconsin's recent scientific land clearing methods by means of which a man becomes a farmer in the same decade in which he was a pioneer.
- CLELAND, H. F. *The black belt of Alabama*. Geog. Rev., Dec., 1920. Pp. 13. Describes with maps and pictures the physiography of the black belt, and points out the geographical influences which have shaped the economic and social character of this region.
- GOODWIN, H. D. *Shipbuilding in the Pacific Northwest*. Wash. Hist. Quart., July,

1930. A bibliography on Northwest shipbuilding which emphasizes especially Lewis and Dryden's *Marine History of the Pacific Northwest*, and gives, also, a chronological table of the chief coast-built vessels between 1788 and 1895.

GRATZ, S. *Thomas Rodney*. Pa. Mag. Hist. & Biog., July, 1919. Pp. 20. A series of letters written by Rodney which contain many references to transportation facilities and other economic conditions in the Ohio valley and lower Mississippi region, as observed on a trip through there in 1803-1804. Continued from previous issues.

HINES, F. T. *The revival of river commerce, particularly on the Mississippi River*. Journ. Engrs. Club of St. Louis, July-Sept., 1920. Pp. 8. Urges the importance of our inland waterways as a means of cheap and sufficient transportation, and the continuation by private interests of the development begun by the government during the war.

JENKS, C. L. *Following the westward star*. Proc. Miss. Valley Hist. Rev., 1918-1919. Pp. 8. Contains selections from the journals of two pioneers, father and son, that give an insight into conditions of travel from Rhode Island to Western Pennsylvania in 1802, and from Pennsylvania to Illinois in 1836.

LASKER, B. *Prosperity: what high wages and steady work mean to Grand Rapids*. Survey, Nov. 6, 1920. Pp. 14. Cites many examples and statistics as proof that there has been a great increase in wholesome spending by all classes and races, accompanied by an increase in saving and provision for the future in various forms. Illustrated.

MERIWETHER, L. *A century of labor in Missouri*. Miss. Hist. Rev., Oct., 1920. Pp. 13. Outlines very briefly labor conditions in the state: wages, strikes, labor legislation, and troubles over company stores of the mining operators.

MORISON, S. E. *Letters on the Northwest fur trade*. Wash. Hist. Quart., July, 1920. Two letters from a ship captain in the fur trade to his owners in Boston, telling of merchandise needed, prices of goods and furs, shortage of provisions, sickness, medicines required, and troubles with the crew.

THOMPSON, J. J. *A chapter in Illinois finances*. Ill. Catholic Hist. Rev., July, 1919. Pp. 8. Tells how George Rogers Clark's conquest of the Northwest was financed by Oliver Pollock, Francis Vigo, and Father Gibault, and of the losses and impoverishment they suffered because of it.

VILES, J. *Missouri in 1820*. Miss. Hist. Rev., Oct., 1920. Pp. 17. Contains some material regarding population, slavery, pioneer farming, early industries, and river traffic.

WHITE, E. J. *A century of transportation in Missouri*. Miss. Hist. Rev., Oct., 1920. Pp. 37. A chronological summary of facts as to early mail routes, trails, caravan and river travel, railroads, automobiles, and airplanes.

Selections from the correspondence of Colonel Clement Biddle. Pa. Mag. Hist. & Biog., July, 1919. Pp. 10. Letters from Tobias Lear contain interesting facts as to freight charges in 1790 on packets running from New York to Philadelphia; told in connection with the transfer of Washington's furniture. Continued from previous numbers.

Agricultural Economics

(Abstracts by A. J. Dadisman)

- BLACK, J. D. *The division of farm income between landlord and tenant.* Am. Assoc. Agri. Legis. Bull. 6 (1920), Apr., 1920. Pp. 16. A discussion of factors determining land rental.
- BOYD, J. E. *Collective bargaining in agriculture.* Am. Assoc. Agri. Legis., Bull. 6, (1920), Apr., 1920. Pp. 13. A discussion of collective bargaining in theory and in practice. Discussions follow.
- CARVER, T. N. *The necessity for the organization of agricultural interests.* Ann. Rpt. Conn. Sta. Bd. Agri., 50 (1918), Sept., 1918. Pp. 13. A discussion of organization for coöperation and its application to marketing farm products.
- CHERRINGTON, P. T. *Statements by the national sheep and wool bureau of America in its "truth in fabric" propaganda questioned.* Bull. Nat. Assoc. Wool Mfrs. July, 1920. Pp. 14. Facts and figures are presented to prove inaccuracy of statements in daily and trade papers.
- COLLETT, A. *The nation's wheat supply.* Contemp. Rev., July, 1920. Pp. 8. An argument in favor of England's producing more of her wheat supply.
- CRIMI, G. N. *L'espropriazione delle terre incolte e mal coltivate in Sicilia.* Rif. Soc., July-Aug., 1920. Pp. 8.
- DIXON, H. M. and HAWTHORNE, H. W. *Farm profits.* U. S. Dept. Agri., Bull. 920 (1920), Dec., 1920. Pp. 56. An analysis of the farm business of 185 farms in Ohio, Indiana, and Wisconsin, from survey records for five or seven years of each farm. Twelve tables, and nineteen charts are given.
- ELY, R. T., HINBARD, B. H., and COX, A. B. *Credit needs of settlers in upper Wisconsin.* Wis. Agri. Exp. Sta. Bull. 318 (1920), Oct., 1920. Pp. 36. Financial needs of pioneering and farm development. Farm credit and how it may be secured.
- GILLETTE, J. M. *The improvement of the rural communication system.* Quart. Journ. U. of N. Dak., Oct., 1920. Pp. 14. An argument in favor of a system of improved roads.
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Railways and Transportation

(Abstracts by Julius H. Parmelee)

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Commerce

(Abstracts by Harry R. Tosdal)

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Public Utilities

(Abstracts by Charles S. Morgan)

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- ELMES, C. F. *Utility regulation and rate of return*. Elec. Ry. Journ., Oct. 16, 1920. Pp. 5. Objection is registered to regulation of public utilities and non-regulation of other industries; consideration of effects of regulation on financial and managerial problems.
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WILCOX, D. F. *Effect of fare increases upon street railway traffic and revenue.* Nat. Munic. Rev., Oct., 1920. Pp. 3. Extended statistical analysis shows that fares cannot be increased greatly without resulting in a less than proportionate increase in revenues and in serious impairment of usefulness of street railways.

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How the zone fare has made good at San Diego. Elec. Ry. Journ., Nov. 13, 1920.

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San Francisco finds municipal ownership losing venture. Pub. Service, Oct., 1920. Pp. 4. Criticism of San Francisco's municipal trolley lines.

✓ *Service-at-cost agreements.* XI. *New York State Railways at Rochester.* XII. *The Community Traction Company of Toledo, Ohio.* Aera, Dec., 1920, Jan., 1921. Pp. 5, 9. Further instalments in a series of detailed uniform analyses of service-at-cost franchises.

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Accounting

(Abstracts by Martin J. Shugrue)

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- HAWKINS, L. G. *Reconciling depreciation and appraised values of industrial equipment.* Engg. Mag., Sept., 1920. Pp. 3. Numerous instances that have arisen in computing federal income and excess profits taxes have shown wide discrepancies between the book values of industrial equipment and the appraised values ascertained by an engineering survey.
- HILL, J. H. *Information desired by a banker.* Journ. Account., Nov., 1920. Pp. 8. How a banker analyzes a credit statement and what information the statement should contain.
- JACKSON, J. H. *Neglected commercial discounts.* Journ. Account., Nov. 8, 1920. The element of discount should be added to the real sales or purchases to determine the net sales revenue or purchase outgo of the period.
- KONOPAK, L. T. *Factory costs.* Journ. Account., Nov., 1920. Pp. 9. Describes a cost system for a factory manufacturing transmissions.
- MITCHELL, P. D. *Accounting for income in eleemosynary institutions.* Journ. Account., Nov., 1920. Pp. 9. Rising costs have produced serious problems of accounting significance in the case of institutions whose income largely arises from long-term investments.
- PATON, W. A. *Interest during construction.* Journ. Pol. Econ., Oct., 1920. Pp. 16. The viewpoints of the economist and accountant must of necessity be very different. There are important reasons why, for purposes of the balance sheet, construction and other property accounts should not contain interest charges.
- STACKHOUSE, G. F., JR. *Accounting for the tungsten industry.* Pace Student, Dec., 1920. Pp. 5.
- WILCOX, D. F. *Working capital in street railway valuation.* Ann. Am. Acad., Nov., 1920. Pp. 24. Street railways are not to include working capital as a part of their rate base.
- Some notes on the negotiation of foreign bills.* Bankers' Mag. (London), Dec., 1920. Pp. 7. The consideration of the subject of negotiation of bills involves several new factors, affecting the position of both customer and banker, which do not arise in the case of collections.
- Suggestions for professional conduct.* Pace Student, Dec., 1920. Pp. 3. Most of the leading professional accountancy firms have codes of conduct which all members of their staffs are required to observe. One of the most comprehensive is that of Haskins & Sells, reproduced in this article.

Labor and Labor Organizations

(Abstracts by David A. McCabe)

- BROWN, J. *Industrial courts in Australia.* Journ. Comp. Legis., Oct., 1920. Pp. 20. The need for industrial courts, the nature of the problems to be dealt with by them, and the causes of the failures of the Australian industrial courts in certain respects.

- CANTONO, A. *Le organizzazioni professionali ed i corpi consultivi e deliberativi del lavoro*. Rev. Intern., Sept.-Oct., 1920. Pp. 11. Discusses a method of developing and rendering effective organizations of occupational groups.
- CHENERY, W. L. *Labor and coöperation*. Survey, Oct. 9, 1920. Pp. 2. The activities of unions in consumers' coöperation and coöperative credit.
- . *Peace in printing*. Survey, Dec. 27, 1920. P. 1. The attempt to reach adjustments with the aid of scientific experts.
- EMERSON, H. *The bases of Emerson incentive*. Indus. Manag., Dec., 1920. Pp. 4. A defense of the Emerson system of payment in reply to "Comparison of wage incentive systems," by L. V. Estes in *Industrial Management* for September.
- ESTES, L. V. *Comparison of wage incentive systems*. Indus. Manag., Sept., 1920. Pp. 8. Favors the 100 per cent premium plan for routine work.
- FAIRCHILD, H. P. *Will the wage system last?* Unpartisan Rev., July-Sept., 1920. Pp. 20. Indications are that it will not. Failure to find method of determining wages that are demonstrably equitable and the desire of workers for share in control point to modification of the system.
- FERGUSON, W. B. *Production methods in shipbuilding*. V. *How incentive systems increase output*. Indus. Manag., Dec., 1920. Pp. 4. Compares results obtained with piece work, the Halsey premium system, and the 100 per cent premium plan.
- FRANCKE, E. *Die erste Allgemeine Arbeitskonferenz des Friedensvertrags*. Weltwirts. Archiv, July, 1920. Pp. 14. Descriptive account of proceedings of international labor conference, with special reference to Germany.
- . *Die Organisation der Arbeit im Friedensvertrag und im Völkerbund*. Weltwirts. Archiv, Jan., 1920. Pp. 15. Welcomes the labor provisions of the treaty and advocates German and Austrian admission to the international labor conference.
- FULLER, R. G. *Child labor and the constitution*. Weekly Rev., Sept. 29, 1920. Pp. 2. Federal constitution should be so amended as to permit the adoption of an adequate national child labor law.
- HUELS, F. W. *An analysis of the 1919 accident experience of the Industrial Commission of Wisconsin*. Wis. Safety Rev., Nov., 1920. Pp. 5.
- JOHNSON, E. M. *The 48-hour law in Massachusetts*. Survey, Oct. 23, 1920. Pp. 2. One year of operation shows favorable results.
- KEET, A. E. *Labor's opportunity*. Forum, Nov., 1920. Pp. 7. Urges coöperation with employers.
- LASKI, H. J. *The British coal dispute*. Survey, Oct. 23, 1920. Pp. 2.
- LEVI, O. *Metodo di partecipazione al profitto e nuove forme di salario*. L'Economista, July 25, 1920. Pp. 4.
- MARSH, E. P. *Wage adjustments in California oil fields*. Mo. Labor Rev., Oct., 1920. Pp. 15. Account, by a member of the President's Mediation Commission, of workings of the agreement made by the commission with the employers and with the workers' organization, separately, in 1917 and since renewed. The text of the agreement for 1920-1921 is included.
- MARSHALL, L. C. *Incentive and output: a statement of the place of the personnel*

- manager in modern industry. *Journ. Pol. Econ.*, Nov., 1920. Pp. 22. The personnel manager must arouse in the workers the "will to do." Wage systems alone will not accomplish it.
- MAYLANDER, A., compiler. *Recent collective agreements and wage awards in Germany*. *Mo. Labor Rev.*, Oct., 1920. Pp. 11.
- MAYLANDER, A., compiler. *Woman labor in Germany during the war*. *Mo. Labor Rev.*, Nov., 1920. Pp. 15.
- MERRITT, W. G. *Social control of industrial strife*. *Unpartizan Rev.*, Jan.-Mar., 1921. Pp. 19. Classifies the strikes which should be considered illegitimate and suggests measures for dealing with them.
- MORTENSON, C. E. *Wages of women employed as cleaners, maids, and elevator operators in buildings and theatres in the District of Columbia*. *Mo. Labor Rev.*, Nov., 1920. Pp. 7.
- NOYES, C. R. *The economics of trade unionism*. *No. Am. Rev.*, Jan., 1921. Pp. 9. The gains of organized workers are made at the expense of the non-unionists and the public, not at the expense of the employers.
- OSBORN, C. *Progress in the factory*. *Charity Organ. Rev.*, Nov., 1920. Pp. 11. Comments on the report of the chief inspector of factories for 1919.
- SACCO, I. M. *Razze, nazioni, stati nel congresso internazionale del lavoro*. *Riv. Intern.*, Aug., 1920. Pp. 5. Author attended the international labor conference at Washington and records his reactions.
- SCANCA, G. *Il controllo operaio nelle fabbriche*. *Suppl. Econ. del Giorn. del Tempo*, Nov. 5, 1920. Pp. 2.
- SEAGER, H. R. *The present industrial situation in the United States*. *Survey*, Jan. 1, 1921. Pp. 4. Deals chiefly with unemployment and the closed versus the open shop issue.
- SLICHTER, S. H. *Industrial morale*. *Quart. Journ. Econ.*, Nov., 1920. Pp. 25. Finds the causes of low morale of employees in prevalent policies of employers and, fundamentally, in exclusion of employees from participation in direction—and returns.
- SOULE, G. *Labor's impending battle*. *New Repub.*, Nov. 17, 1920. Pp. 3. The trade unions generally will face the employers with the handicap of out-of-date policies; progressive leadership is needed by the workers.
- TAWNEY, R. H. *The British coal situation*. *New Repub.*, Nov. 10, 1920. Pp. 3. The miners' demands have more merit than the proposals of the government. The present organization of the industry has been irretrievably discredited.
- THOMAS, C. *Seattle's new labor policy*. *Am. Rev. Rev.*, Nov., 1920. Pp. 5. Highly favorable account of the policies inaugurated by the Labor Relations Committee of the Chamber of Commerce; these are based on shop representation and scientific management.
- THOMAS, E. H. C. *The "shop committee" cure for industrial unrest: how the golden rule works in a Washington lumber mill*. *Am. Rev. Rev.*, Oct., 1920. Pp. 4.
- TOWN, J. D. *Common labor responds to incentives. Satisfactory results of introducing a bonus system in a foundry*. *Indus. Manag.*, Dec., 1920. Pp. 3.

- VORSE, M. H. *Derelicts of the steel strike*. Survey, Dec. 4, 1920. Pp. 4. Accounts of individual cases. Followed by the steel company's reply.
- WATKINS, M. W. *The labor situation in Detroit*. Journ. Pol. Econ., Dec., 1920. Pp. 18. Deals with the causes of the lack of organization among employees, the policies of the employers, the conditions of labor and the attitude of the employees.
- WILLIS, H. E. *The emancipation of labor*. Quart. Journ. U. of N. Dak., Oct., 1920. Pp. 18. Favors giving labor a share in control equal to that of capital.
- WOOSTEN, T. J., JR. *The negro and industrial peace*. Survey, Dec. 18, 1920. Pp. 2. Award of the Anthracite Coal Commission and resultant wage rates. Mo. Labor Rev., Oct., 1920. Pp. 18. Includes full text of the majority report of the commission, a summary of the minority report, and the text of the agreement made between the operators and the union on the basis of the majority report.
- Controllo operaio sulle industrie*. L'Economista, 1920. A series of articles under this head (labor control of industry) and similar titles growing out of the metallurgical disturbance of August and September, appeared in the weekly numbers of this journal during the fall of 1920.
- Employer's man or unionist?* New Statesman, Sept. 18, 1920. Pp. 2. The dispute between the Electrical Trades Union and the Engineering Employer's Federation over the foremen.
- Engineers on hours*. Survey, Oct. 30, 1920. P. 1. Testimony of engineers in favor of the eight-hour day as against the twelve-hour day.
- Investigation shows unrest of wage earners*. Greater New York, Oct. 4, 1920. Pp. 2. Study shows high rate of labor turnover in New York City.
- Joint industrial councils in the United Kingdom*. Lab. Gaz. (Can.), Oct., 1920. Pp. 4. A general review of what has been accomplished. Reprinted from the *Month's Work of the Ministry of Labour*, Aug., 1920.
- Labor legislation of 1920*. Am. Lab. Legis. Rev., Sept., 1920. Pp. 37.
- League of Nations second international labour conference*. Lab. Gaz. (Can.), Oct., 1920. Pp. 14.
- Legislation relating to the regulation and inspection of factories in Canada—a comparison of the various provincial laws on the subject*. Lab. Gaz. (Can.), Oct., 1920. Pp. 11.
- La main-d'oeuvre étrangère en France*. L'Econ Franç., Nov. 6, 1920. Pp. 3. The arrangements made for recruiting workmen in other allied countries, and the terms of agreements made with the Polish and Italian governments covering the employment of their nationals in France.
- New wage schedule for Navy Yard employees*. Mo. Labor Rev., Oct., 1920. Pp. 4.
- Protections for seamen: draft conventions and recommendations adopted by the international labor conference of the League of Nations (Second meeting)*. Am. Lab. Legis. Rev., Sept., 1920. Pp. 6.
- Report of Federal Electric Railways Commission*. Mo. Labor Rev., Oct., 1920. Pp. 5. Includes full text of the section of the report dealing with labor on street railways.
- Self-government in the building industry in Great Britain*. Mo. Labor Rev., Oct., 1920. Pp. 6. Workings of the plan. Based on a report by the Garton Foundation.

Some factors affecting the relation between hours and output in Great Britain. Mo. Labor Rev., Oct., 1920. Pp. 4. Summary of two recent reports of the English Industrial Fatigue Research Board.

Three shifts in steel. Survey, Dec. 11, 1920. Pp. 2. Favorable testimony of engineers.

Money, Prices, Credit, and Banking

(Abstracts by C. A. Phillips)

ANDERSON, B. M., JR. *Europe's floating debt of three and a half billions to private creditors in America.* Econ. World, Oct. 9, 1920. Pp. 2. Contends that expansion in American bank credit during 1919 and 1920 was traceable in large measure to the extension of unfunded credit to Europe.

AUSTIN, O. P. *World debts and paper currency continue to increase.* Americas, Nov., 1920. Pp. 5. Government debts created during the second year of peace were confined largely to Europe and especially to newly created states.

CASE, J. H. *A study of the federal reserve system during and following the war period.* Comm. & Finan. Chronicle, Nov. 27, 1920. Pp. 2. A clear and able presentation of the part played by the federal reserve system in the solution of the financial and credit problems arising out of the war.

COPELAND, M. T. *The decline in prices as the first stage of the return to a sound basis for business.* Econ. World, Oct. 16, 1920. Pp. 3.

DUNCAN, A. E. *The sale of open accounts receivable.* Bankers Mag. (Am.), Nov., 1920. Pp. 7. A defense of the non-notification plan of assigning accounts receivable.

GEPHART, W. F. *Observations on the price situation obtaining in the United States in November, 1920.* Econ. World, Dec. 11, 1920. Pp. 4. An illuminating study in relative exchange values and their bearing upon the business outlook.

GEORGHIU, D. J. *La situation monétaire de la Roumaine. Régime sous l'occupation ennemie et état actuel.* Rev. d'Econ. Pol., Sept.-Oct., 1920. Pp. 12. A documentary account.

GIDE, FISHER, DIEHL, SHERWELL, ROWE, BERLINK. *El coeficiente de corrección de la moneda.* Rev. Econ. Argentina, Mar., 1920. Pp. 6.

GILCHRIST, W. R. *War finance: a comparison and criticism of the methods adopted by the allied and enemy countries.* Scottish Bankers Mag., Oct., 1920. Pp. 20. A succinct and critical account of the provision of credit and currency, of control over the foreign exchanges, of methods of taxation.

HAMMOND, M. O. *Canada's domestic credit situation improving.* Mag. of Wall St., Oct. 2, 1920. Pp. 3. Some recent developments in the Canadian banking system.

HERRICK, C. *Trust department in national banks.* Bankers Mag. (Am.), Nov., 1920. Pp. 5. The tendency toward uniformity in the services rendered by various classes of banks has become more and more pronounced under the operation of the Federal Reserve act.

JACOBSON, M. and GOLDENWEISER, E. A. *Developments in the banking field with special reference to federal reserve matters.* Quart. Pubs. Am. Stat. Assoc., Sept., 1920. Pp. 4. Shifting trade conditions combined with the introduction of a new exchange and currency system have caused an exportation of silver to get gold.

- LIESKE, A. *Le futur emprunt et l'accroissement d'émission de la banque de France.* L'Econ. Franç., Aug. 14, 1920. Pp. 3.
- OTTOLENGHI, C. *Index-numbers of wholesale prices in Italy during the Great War.* Journ. Royal Stat. Soc., July, 1920. Pp. 10. The construction of a system of index numbers, with observations on the variation of wholesale prices during the war.
- PRESTON, H. H. *Federal reserve banks' system of par collection.* Journ. Pol. Econ., July, 1920. Pp. 25. The development of the system of par collections with special reference to the opposition of the exchange-charging banks.
- RAFFALOVICH, A. *L'enquête monétaire de la Société des Nations.* Journ. des Econ., Oct., 1920. Pp. 5.
- ROTHKEGEL, W. *Untersuchungen über Bodenpreise, Mietpreise, und Bodenverschuldung.* Schmollers Jahrb., 44 Jahrgang, 3 Heft, 1920. Pp. 36.
- SCHMIDT-ESSEN, L. *Die staatliche Währungspolitik im System der Chartaltheorie.* Weltwirtsch. Archiv, July, 1920. Pp. 13.
- SHIRRAS, G. F. *Some effects of the war on gold and silver.* Journ. Royal Stat. Soc., July, 1920. Pp. 35. The production of the precious metals in war time, fluctuations in their prices; lessons of the war in regard to gold and silver currency.
- STEWART, W. W. *Prices during the war.* Quart. Pubs. Am. Stat. Assoc., Sept., 1920. Pp. 9. An account of the inquiry conducted by the Price Section of the War Industries Board.
- SEIKAL, *Das "kapitalistische" und das "kommunistische" Geld.* Schmollers Jahrb., 44 Jahrgang, 3 Heft, 1920. Pp. 18.
- TAUSIG, BOWLEY, KINDERMANN. *El coeficiente de corrección de la moneda.* Rev. d'Econ. Argentina, Apr., 1920. Pp. 3.
- VAN DERP, E. C. *Abnormal deviations in international exchanges.* Econ. Journ., Sept., 1920. Pp. 4.
- VAN NIEROP, A. S. *Das Bankwesen in Niederländisch-Westindien.* Weltwirtsch. Archiv, Apr., 1920. Pp. 9.
- Bankers' advances and deflation.* Bankers' Mag. (London), Dec., 1920. Pp. 9. British inflation as reflected in bank balance sheets, and a consideration of the effects of contraction.
- The Edge law. What shall we do with it?* Bankers Mag. (Am.), Sept., 1920. Pp. 7.
- Die Ergebnisse der schweizerischen Munzenquete vom 25. Februar 1920.* Zeitschr. f. schwiz. Statistik, 56 Jahrgang, Heft 2, 1920. Pp. 20.
- Italy: The popular banks.* Intern. Rev. Agri. Econ., Mar., 1920. Pp. 6. Their number, constituencies, functions, resources, federations.
- Progress of banking in Great Britain and Ireland during 1919.* Bankers Mag. (London), Nov., 1920. Pp. 13. The combined total of bank capital and reserves was no larger in Great Britain in 1913 than in 1902; between 1913 and 1919 the ratio of capital and reserves to callable liabilities fell from 11 per cent to only 6 per cent.
- Wholesale prices of commodities in 1919.* Journ. Royal Stat. Soc., July, 1920. Pp. 18. The rising price level began to lose momentum at the end of 1917.

Population and Migration

(Abstracts by A. B. Wolfe)

- BEVAN, E. *Racial equality in migration*. Intern. Rev., Nov., 1919. Pp. 7. Treats of Asiatic migration and frictions resulting therefrom. The white race probably must recognize the need of the yellow races for more territory, or ultimately "enter upon a series of frightful race wars."
- BONACHEA, O. *Factores que han influido en la concentración urbana de la población en Cuba*. Rev. Bimestre Cubana, June, 1920. Pp. 9. Classifies the factors into religious, defensive, agricultural and industrial, and governmental. Complains that adequate historico-statistical data are lacking.
- BOURDON, J. and BÉRILLON, A. *La diminution de la natalité en Grande-Bretagne*. Rev. Intern. de Sociol., Sept.-Oct., 1920. Pp. 11. Non-statistical. Deals with the probable causes.
- DARWIN, L. *Some birth rate problems*. Eugenics Rev., Oct., 1920. Pp. 11. Birth limitation has had serious dysgenic effects. If birth control is necessary to prevent overpopulation, measures must be taken to see that classes with the most desirable qualities do not eliminate themselves.
- DE GREGIO, U. E. *Esercito ed emigrazione. I cittadini residenti all'est ero ed il nuovo ordinamento militare*. Bollettino della Emigrazione, July, 1920. Pp. 16.
- FÜRTH, v. H. *Bevölkerungsfragen und Nachkriegsaufgaben der Bevölkerungspolitik*. Archiv f. Sozialwis., July, 1920. Pp. 13. To make good the ravages of war on the population, what is needed is not a higher birth rate but reduction of mortality and better social care for the health of those children who are born.
- MANSCHÉ, R. *Die Bewegung der Bevölkerung und die Ergebnisse der Familienstatistik im Grossherzogtum Luxemburg*. Zeitsch. f. Sozialwis., Aug., 1920. Pp. 32. A detailed demographic discussion.
- QUELLE, O. *Die Spanisch-portugiesische Auswanderung*. Schmoller's Jahrbuch, Jahrg. 44, Heft 3. Pp. 32. The sources, ebb and flow, destination, causes, and results of Spanish and Portuguese emigration, 1873 to 1916.
- Le mouvement de la population de la France au cours de l'année 1919 dans 77 départements (chiffres provisoires)*. L'Econ. Franç., Sept. 4, 1920. Pp. 3. Contains a detailed table showing 217,181 more deaths than births in 1919, and an excess of 389,575 births over deaths in 1918. Births in 1918 were 67 per cent, marriages 71 per cent, deaths 134 per cent of births, marriages, and deaths, respectively, in 1913.
- Proposals to ameliorate evils of immigration*. Greater New York, Nov. 22, 1920. Pp. 4. Opposes further restrictive legislation, but recommends reforms in naturalization, together with more effective measures for education, etc. Asks for a national commission to consider plans for the distribution of immigrants. Written largely from the employers' point of view.

Insurance and Pensions

(Abstracts by Henry J. Harris)

- CHILDS, A. E. *The accomplishment of the different branches of casualty insurance in the United States in 1919*. Econ. World, Oct. 23, 1920. Pp. 3. The four great

divisions of insurance—life, fire, marine, and casualty, have all shown tremendous growth.

DICK, B. *The romance of marine insurance*. Econ. World, Nov. 27, 1920. Pp. 3. History, development of types of vessels, salvage operations, calculation of rates.

DRAPIER, W. H. *Conditions of success in developing an insurance business in South American countries*. Econ. World, Dec. 4, 1920. Conditions of doing business, prospects, etc., in the more important countries.

FISKE, H. *Life insurance investments: what, where and why?* Econ. World, Dec. 11, 1920. Pp. 3. Controlling principle is first safety, second income. Also to be considered are need of public, needs of localities where policy-holders reside, needs of government bodies, needs of policyholders themselves.

FLYNN, B. D. *The effect of the war upon the development of social insurance in this country*. Proc. Cas. Act. Stat. Soc., May 28, 1920. Pp. 6. Higher wages and improved condition of workers makes social insurance unnecessary.

HARRIS, H. J. *British national health insurance act of May, 1920*. Mo. Labor Rev., Sept., 1920. Pp. 11. Provisions of act and summary of operations.

HOFFMAN, F. L. *Some problems in the evolution of life insurance*. Econ. World, Nov. 27, 1920. Pp. 3. Discusses objections to social insurance, great importance of investments, health conservation, promotion of thrift, woman's activities in insurance, lessons of the war, United States war risk system.

MICHAEL, C. E. *Why the employers of Virginia rejected monopolistic state fund workmen's compensation insurance*. Econ. World, Nov. 20, 1920. Pp. 3. Employers stated to be dissatisfied with results obtained by other state funds.

MICHELBAEHR, G. F. *The technique of rate making as illustrated by the 1920 national revision of workmen's compensation rates*. Proc. Cas. Act. Stat. Soc., May 28, 1920. Pp. 49. Detailed description of methods used in 1920 revision.

MOWBRAY, A. H. *The actuarial problems of the 1920 national revision of workmen's compensation insurance rates and the solutions developed by the actuarial committee of the national council*. Proc. Cas. Act. Stat. Soc., May 28, 1920. Pp. 35. Outstanding features were: Change in method of combining experience and transplanting the selected basic pure premiums into state pure premiums; development of statistical projection from earlier years of issue to conditions of more recent date.

WHITNEY, A. W. *The various systems of workmen's compensation insurance from the standpoint of cost, service, and security*. Econ. World, Oct. 16, 1920. Pp. 4. Not desirable for the state to enter the field. Competitive institutions best serve society in this field.

WILLIAMS, F. M. *Service, security, and cost under different systems of workmen's compensation*. Econ. World, Oct. 2, 1920. Pp. 2. Description of the Connecticut system.

The new unemployment insurance act of Great Britain. Econ. World, Oct. 30, 1920. Pp. 2. Summary of provisions of act of August 9, 1920.

New York City employees' retirement system. City Record, Nov. 5, 1920. Pp. 7. Mortality and service tables, and employees' contribution rates.

Pension system for Milwaukee city employees. Library Journ., Sept. 1, 1920. Pp. 2.

Pauperism, Charities, and Relief Measures

(Abstracts by George B. Mangold)

- BUTLER, E. J. *Standards of child placing and supervision.* Cath. Charities Rev., Nov., 1920. Pp. 6. Describes the plan followed by the Catholic Home Bureau of New York and, in some detail, the standards that should be recognized by child placing agencies.
- CYPRIAN, E. *Charity during the first three centuries of the Christian era.* Cath. Charities Rev., Nov., 1920. Pp. 5. The subject-matter of this article depends on the writings of the early church fathers. It appears that much charitable work was carried on and that the relation between Christianity and charity was very close. Discrimination in relief giving became a matter of policy about the third century.
- FEUGÈRE, E. *L'assistance publique à Paris.* L'Econ. Franç., Oct. 30, 1920. Pp. 3. A brief account of the budget of public philanthropy in Paris for the year 1920. Comparisons are made with the previous year and the more important items are discussed with particular reference to the results to be obtained.
- JONES, L. *City Mother's Bureau of Los Angeles.* Nat. Munic. Rev., Aug., 1920. The work consists primarily in dealing with boys and girls in danger of becoming delinquents, by using informal ways and endeavoring in each case to map out a program for the benefit of the child. Several cities have followed the example of Los Angeles. Other cities, however, are attempting to apply the city mother idea without establishing a separate bureau. Office machinery is less important than the application of the city mother idea.
- KELSO, R. W. *Endorsement of charities by chambers of commerce.* Nat. Munic. Rev., Mar., 1920. Pp. 4.
- WAGGAMAN, M. T. *Labor colonies for the feeble-minded.* Mo. Labor Rev., Sept., 1920. Pp. 8. A short account of the progress that has been made in employing high grade mental defectives. The experiment in Massachusetts has been particularly successful. In the girl's colony in New York the cost of maintenance has been reduced about two thirds. The experience of several states indicates that further development along these lines is possible.
- Administration of the poor law.* Charity Organ. Rev., Oct., 1920. Pp. 5. Pauperism in England seems to have declined. The proportion of persons receiving relief fell from 26.7 per thousand of the population in 1896 to 15 in 1920. One effect has been to leave vacant a number of poor law institutions. A considerable decrease in vagrancy is also noted. Many children, however, remain in the almshouses and the administration of outdoor relief is still unsatisfactory.

NOTES

Since December 1, the following names have been added to the membership of the AMERICAN ECONOMIC ASSOCIATION:

Ash, B. F., Longlothe, Pa.
 Babcock, H. E., 103 Harvard Place, Ithaca, N. Y.
 Berridge, William A., Wadsworth House, Cambridge, Mass.
 Bradford, Ernest S., 12 Argyle Ave., New Rochelle, N. Y.
 Brooks, R. P., University of Georgia, Athens, Ga.
 Brown, Dorothy M., 36 Paradise Road, Northampton, Mass.
 Butler, R. V. A., Box 314, New Brunswick, N. J.
 Coons, A. G., University of Pennsylvania, Philadelphia, Pa.
 Cunningham, Wallace M., University of Pennsylvania, Philadelphia, Pa.
 Cushing, Morgan B., 4506 Walnut St., Philadelphia, Pa.
 Dye, Earl V., New York University, New York City.
 Einsig, Paul, 4 Bernard St., Russell Sq., London, Eng.
 Eriksen, J., Det Norike Arberderpartis, Christiania, Norway.
 Fuller, George M., Iowa State College, Ames, Iowa.
 Funkhouser, Leonard A., 451 West 9th St., Erie, Pa.
 Gimbel, L. Richard, 9th and Market Sts., Philadelphia, Pa.
 Harbour, Nina, Vassar College, Poughkeepsie, N. Y.
 Hawkins, George W., Y. M. C. A., Fairmont, W. Va.
 Hobson, Asher, Columbia University, New York City.
 Hoffman, Wright, University of Pennsylvania, Philadelphia, Pa.
 Huston, S. Arthur, 16 E. Biddle St., Baltimore, Md.
 Journey, R. C., Cornell College, Mt. Vernon, Iowa.
 Knight, Paul K., 1814 Harris Trust Bldg., Chicago, Ill.
 McDonough, John E., Dartmouth College, Hanover, N. H.
 Mackie, Robert M., State University of Iowa, Iowa City, Iowa.
 Maling, Ernest H., 151 Pine St., Portland, Maine.
 Martin, C. C., 89 Burling Slip, New York City.
 Matthews, W. O., 23 Scott St., Toronto, Ont., Canada.
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 Rene, Pere Lefever, 37 rue Sourts Neuve, Anvers, Belgium.
 Rorty, M. C., 195 Broadway, New York City.
 Schluter, William C., University of Pennsylvania, Philadelphia, Pa.
 Snyder, Carl, 15 Nassau St., New York City.
 Stone, Raleigh W., State University of Iowa, Iowa City, Iowa.
 Swart, J., Colorado College, Colorado Springs, Colo.
 Wallin, Z. B., Ohio State University, Columbus, Ohio.

Williams College announces the establishment of an Institute of Politics. It is planned to bring together in Williamstown for a month or six weeks each summer a group of scholars and special students to be addressed by experts. There will be round table discussions and facilities for research and intensive instruction. The first session will open July 28, 1921.

In the spring of 1920 John D. Rockefeller, Jr., contributed to Bryn Mawr College the sum of \$100,000 toward the instruction in industrial

relations under the Carola Woerishoffer Graduate Department of Social Economy and Social Research. This contribution, together with an additional endowment which is being raised, will establish the Grace H. Dodge Foundation, affording training in industrial relations and offering ten scholarships and fellowships of the value of \$300 and \$500 each, and will also maintain the expenses of field work and supervision for this training. In this way, the work which was undertaken by the college in coöperation with the War Council of the National Board of the Young Women's Christian Association has been made permanent.

A School for Social Service Administration has been established at the University of Chicago under the direction of Professor L. C. Marshall.

Hart Schaffner & Marx prizes have been awarded as follows: Class A, first prize \$500 to Frank D. Graham, assistant professor of economics at Dartmouth College, for a study on "International trade of the United States in the greenback period"; Class B, second prize \$200 to the following undergraduates: H. D. Costigan, of Harvard University, for a study on "Nationalization of collective bargaining in the men's clothing industry"; and C. T. Steward, of Indiana University, for a study of the "Causes of the recent rise in the price of silver."

In order to stimulate study of economic problems, the Francis D. Pollak Foundation for Economic Research offers three prizes for the best essays submitted in 1921: \$1,000 open to every one without restriction; \$500 open to college undergraduates in the United States; \$500 open to high school students. An essay must contain not more than 10,000 words. The subjects are: "The part that money plays in economic theory"; "Causes of unemployment and remedies"; "Conditions which determine how much the consumer gets for his dollar." Information may be obtained from Dr. William T. Foster, Director, Newton 58, Mass.

The nineteenth annual convention of the American Institute of Banking will be held at Minneapolis, July 19-22, 1921.

At the recent annual meeting of the American Statistical Association the following officers were elected: Carroll W. Doten, president; Ernest L. Bradford, Louis I. Dublin, William M. Stuart, vice presidents; Raymond Pearl, Warren M. Persons, Malcolm C. Rorty, counsellors; Robert E. Chad-dock, secretary-treasurer; Horace L. Wheeler, librarian; and William F. Ogburn, editor.

There has been deposited in the University of Chicago library the library of the late Professor Charles R. Henderson. This contains over 6,000 items.

The National Tax Association offers early volumes of its *Proceedings* at a nominal price of 50 cents each or 30 cents when more than one volume is

ordered. Address A. E. Holcomb, Treasurer, 195 Broadway, New York City.

D. Appleton and Company announce for immediate publication *Economic Development of the United States*, by Isaac Lippincott.

The Ronald Press Company, New York, has begun the publication of a monthly journal entitled *Administration*, devoted to business analysis and control.

The Research and Statistical Department of the First National Bank of St. Louis is publishing a monthly circular entitled *Review of Business and Financial Conditions*, which contains suggestive material.

The London School of Economics is publishing a new journal entitled *Economica*. This will appear triennially (7s. 6d. per year, 2s. 6d. each) under the editorship of professors Wallas, Bowley, and Cannan.

The International Institute of Agriculture announces that the *Statistical Bulletin*, which until now has been published monthly, will, beginning with January, 1921, be divided into three sections to be issued at different intervals during the month.

Institut Solvay has revived publication of *Revue de L'Institut de Sociologie*, a journal which before the war was one of the most helpful for a record of current literature. Address: Parc Léopold, Bruxelles.

Appointments and Resignations

Mr. Benjamin H. Beckhart, who last year was in the Federal Reserve Bank of New York, is now instructor in economics and social institutions in Princeton University.

Professor Holmes Beckwith, formerly at Colorado College, is professor of insurance and finance, in charge of those departments, in the School of Business Administration at Syracuse University.

Professor R. G. Blakey, of the University of Minnesota, has been made president of the Minnesota State Tax Association.

Professor E. L. Bogart, of the University of Illinois, has been appointed a member of a Committee on Free Zones and Free Ports of the Chamber of Commerce of the United States of America. Last summer he was chairman of a United States Commission on Port Congestion in Havana appointed to coöperate with a similar commission of the Cuban government to relieve the serious shipping situation in Havana harbor.

Miss Gladys Boone has been elected instructor on the Grace H. Dodge Foundation in the Carola Woerishoffer Graduate Department of Social Economy and Social Research, Bryn Mawr College.

Professor Ezra Bowen, formerly associate professor in the College of Business Administration, Lehigh University, has been appointed professor and head of the department of economics at Lafayette College.

Mr. Lloyd M. Cosgrave is assistant professor of economics at Carnegie Institute of Technology.

Dr. W. W. Cumberland, who is on leave of absence from the University of Minnesota, has joined the Department of State as assistant foreign trade adviser.

Mr. J. Franklin Ebersole, of the University of Minnesota, has been made assistant federal reserve agent for the ninth district. He will continue, however, to give courses in finance at the university.

Mr. H. M. Eliot, formerly at the Texas Agricultural College, is farm management demonstrator of the extension service, and also teaches agricultural economics, at Michigan Agricultural College.

Professor F. A. Fetter, of Princeton University, is chairman of the Committee on Good Citizenship, of the State Council, which is undertaking a large program of active work for child welfare in New Jersey.

Mr. M. G. Glaeser, of the University of Wisconsin, has been placed in charge of an investigation by a committee in Milwaukee known as the Public Utilities Acquisition Committee to report upon a future plan of adjusting local public utility relations.

Dr. Joseph M. Gillman is acting head of the department of economics and sociology at the University of Arkansas.

Mr. Ernest S. Griffith, Rhodes Scholar from New York State, is for the present year instructor in economics and social institutions in Princeton University.

Miss Olga L. Halsey is instructor of economics and sociology at Wellesley College.

Mr. Seymour Harris is instructor in economics and social institutions in Princeton University.

Dr. Augustus W. Hayes is instructor in sociology in the School of Social Science of Tulane University and assistant in rural organization in the Gulf Division of the American Red Cross.

Professor E. A. Heilman, of Drake University, has been appointed assistant professor of accounting at the University of Minnesota.

Professor Stanley E. Howard, of Princeton University, assisted by Mr. C. S. Tippetts and Mr. A. F. Lucas, is giving a course in the elements of accounting to a group of employees of the Guaranty Trust Company, New York City.

Dr. L. B. Krueger, formerly at the University of Wisconsin, is assistant professor of economics at Oberlin College.

Dr. Louis Levine, formerly at the University of Montana, and later on the staff of the *New York World*, is now professor of economics at Beloit College during the absence of Professor A. E. Suffern.

Mr. Arthur F. Lucas, recently graduated from Bates College, is instructor in economics and social institutions in Princeton University.

Professor George B. McClellan has resumed his duties as professor of economic history in Princeton University, after a leave of absence covering the period of the war.

Mr. Eliot G. Mears, on leave of absence from the United States Department of Commerce, is acting professor of economics at Leland Stanford Junior University for the winter and spring quarters.

Mr. J. Ronald Meiklejohn has been appointed instructor in economics at Dartmouth College for the second term.

Dr. Hermon K. Murphy, formerly at Hamilton College, is now instructor in economics at Carnegie Institute of Technology.

Professor Howard S. Noble, of the University of Minnesota, has been made cost accountant for the Washburn-Crosby Milling Company in addition to his duties at the university.

Mr. James W. Ryan, assistant United States District Attorney for Admiralty Litigation in the eastern and southern district of New York and New Jersey, with the Shipping Board, war, navy, and treasury departments, has been appointed special lecturer in charter parties and bills of lading in New York University School of Commerce, Accounts, and Finance.

Mr. Donald W. Sawtelle, of the department of agricultural economics at the Massachusetts Agricultural College, has been promoted to the rank of assistant professor.

Dr. Charles L. Stewart resigned his position in the University of Arkansas the first of the year to become associate agricultural economist in land economics in the Office of Farm Management and Farm Economics of the United States Department of Agriculture. The Division of Land Economics, of which Dr. L. C. Gray is in charge, is projecting a number of studies in land tenure. Dr. Stewart is to give special attention to farm tenancy for preliminary reports within two years.

Mr. C. B. Williams, formerly at Iowa State College, is assistant professor of agricultural economics at the University of Kentucky.

Senator Luigi Bodio, for many years secretary of the International Institute of Statistics, died November 2, 1920.

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